

(19)日本国特許庁 (JP)

(12) 公開特許公報 (A)

(11)特許出願公開番号

特開平11-184913

- (43)公開日 平成11年(1999)7月9日

(51)Int.Cl'

G 06 F 17/60

類別記号

P I

G 06 F 15/21

Z

審査請求 有 請求項の数 5 O L (全 13 頁)

(21)出願番号 特願平9-353351

(22)出願日 平成9年(1997)12月22日

(71)出願人 000114879

ヤマト運輸株式会社

東京都中央区銀座2丁目16番10号

(72)発明者 江頭 哲也

東京都中央区銀座2丁目16番10号 ヤマト
運輸株式会社内

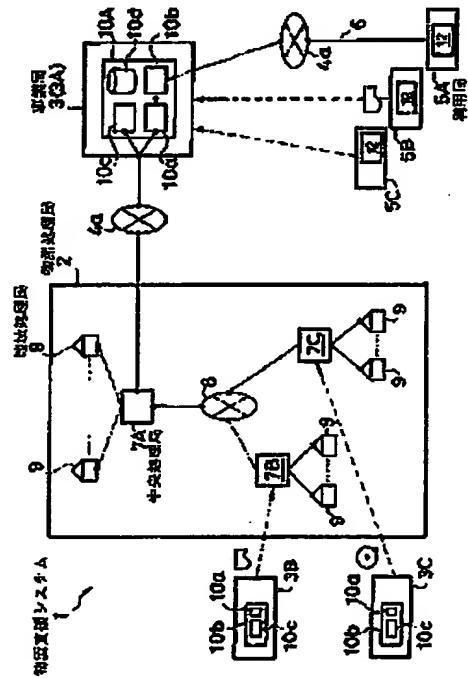
(74)代理人 弁理士 竹内 三郎 (外1名)

(54)【発明の名称】 物流支援システム

(57)【要約】

【課題】 修理品などの物流業務を効率化して、ユーザー及び事業者双方に有益な物流支援システムを提供する。

【解決手段】 物流指示情報の生成処理手段10aと集金指示情報の生成処理手段10cを有するデータ処理装置10Aを備えた事業局3と、物流処理局2とから物流支援システム1を構成する。物流処理局2は、中央処理局7と地域処理局9とを通信回線8で接続してなる構成を有するとともに、この中央処理局7にデータ処理装置13を備え、このデータ処理装置13を上記物流指示情報または集金指示情報を受領して、受領した情報に対応する送付状を発行するように物流支援システム1を構成する。



特開平11-184913

(2)

2

な修理品等の物流業務をユーザーからみると、ユーザーは、自ら修理品を専門店などに持込まねばならないので、その煩わしさと余計な時間を要しているという点に問題がある。一方、メーカーからみると、修理品の回収業務や返品業務という本来の修理業務以外の部分に人員と経費を必要とし、このことが収益のマイナス要因になっている点に問題がある。また、収益のマイナス要因があれば、メーカーはこれを製品価格やサービス価格に上乗せせざるを得ず、このことはユーザーからみても問題であることはいうまでもない。

【0004】そこで、本発明者は、上記のような修理品等の物流業務における効率化を目的として検討を進めたところ、ユーザー及びメーカーの双方の物流業務を代行して行う処理局を設けることにより、物流業務の効率化を図り、ユーザーとメーカーの双方に有益となるシステムを発案し、本発明の完成にいたったものである。

【0005】

【課題を解決するための手段】上記課題を解決するため、本発明は、物流指示情報の生成処理手段と集金指示情報の生成処理手段を有するデータ処理装置を備えた事業局と、物流処理局とからなる構成を有する物流支援システムであって、上記物流処理局は、中央処理局と複数の地域処理局とを通信回線網で接続してなる構成を有するとともに、この中央処理局にデータ処理装置を備え、このデータ処理装置を上記物流指示情報または集金指示情報を受領して、受領した情報を対応する送付状を発行するように構成してある物流支援システム。

【0006】この物流支援システムによれば、事業局は、物流指示情報と集金指示情報の生成と伝達という情報処理を行うだけで、当該指示情報を対応する物流業務は物流処理局に代行させることができる。

【0007】また、物流支援システムは、物流指示情報の生成処理手段と集金指示情報の生成処理手段を有するデータ処理装置を備えた事業局、物流処理局及び申込情報生成処理手段を有するデータ処理装置を備えた利用局とからなる構成を有する物流支援システムであって、上記物流処理局は、中央処理局と複数の地域処理局とを通信回線網で接続してなる構成を有するとともに、この中央処理局にデータ処理装置を備え、このデータ処理装置を上記物流指示情報または集金指示情報を受領して、受領した情報を対応する送付状を発行するように構成してある物流支援システムとすることができる。

【0008】この物流支援システムのように、利用局を設ける場合には、利用局において申込情報を生成することができる。これを事業局において受領するとともに、自局内におけるデータ処理装置に取り込めば、これに基づいて物流指示情報を生成して、物流処理局に伝達することができる。

【0009】また、上記いずれの物流支援システムにお

1

【特許請求の範囲】

【請求項1】 物流指示情報の生成処理手段と集金指示情報の生成処理手段を有するデータ処理装置を備えた事業局と、物流処理局とからなる構成を有する物流支援システムであって、

上記物流処理局は、中央処理局と複数の地域処理局とを通信回線網で接続してなる構成を有するとともに、この中央処理局にデータ処理装置を備え、このデータ処理装置を上記物流指示情報または集金指示情報を受領して、受領した情報を対応する送付状を発行するように構成してある物流支援システム。

【請求項2】 物流指示情報の生成処理手段と集金指示情報の生成処理手段を有するデータ処理装置を備えた事業局、物流処理局及び申込情報生成処理手段を有するデータ処理装置を備えた利用局とからなる構成を有する物流支援システムであって、

上記物流処理局は、中央処理局と複数の地域処理局とを通信回線網で接続してなる構成を有するとともに、この中央処理局にデータ処理装置を備え、このデータ処理装置を上記物流指示情報または集金指示情報を受領して、受領した情報を対応する送付状を発行するように構成してある物流支援システム。

【請求項3】 前記事業局と物流処理局のデータ処理装置を互いに情報伝達手段によって接続したことを特徴とする請求項1または2に記載の物流支援システム。

【請求項4】 前記事業局と利用局のデータ処理装置を互いに情報伝達手段で接続したことを特徴とする請求項2または3に記載の物流支援システム。

【請求項5】 前記物流処理局のデータ処理装置と、事業局のデータ処理装置に共通する情報の記憶部を有する記憶手段を設けて、共通する情報の装置間相互交換を可能に構成してあることを特徴とする請求項1から4のいずれかに記載の物流支援システム。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】 本発明は、修理品や再生品あるいは返品にかかる物流業務さらには通信教育用教材等に関わる物流業務を支援するための物流支援システムに関する。

【0002】

【従来の技術】 修理品や再生品あるいは返品に関わる物流業務、例えば、電気製品の修理品に關わる物流業務は、修理品の回収業務とその返却業務とに大別できるのが一般的である。この場合の修理品の回収業務は、ユーザーが修理品を専門店や量販店に持ち込むと共に、メーカーがその修理品を回収することにより行われ、一方、返却業務は、ユーザーが修理品の受取に訪れるることによって行われる。

【0003】

【発明が解決しようとする課題】 ところで、以上のように

(3)

特開平11-184913

3

いても、前記事業局と物流処理局のデータ処理装置を互いに情報伝達手段によって接続した構成を有して、物流支援システムを構成するのが好ましい。そうすれば、事業局で生成した物流指示情報と集金指示情報を簡便に物流処理局に伝達することができる。

【0010】さらにまた、前記事業局と利用局のデータ処理装置を互いに情報伝達手段で接続した構成を有して、物流支援システムを構成するのが好ましい。そうすれば、利用局で生成した申込情報を簡便に物流処理局に伝達することができる。

【0011】いずれの物流支援システムにおいても、前記物流処理局のデータ処理装置と、事業局のデータ処理装置に共通情報の記憶部を有する記憶手段を設けて、共通情報の装置間相互交換を可能に構成してあるものが好ましい。この場合は、共通情報を装置間で共有することによって、情報の一元管理が可能になる。

【0012】

【発明の実施の形態】以下、本発明にかかる物流支援システムの一例として、好適な実施の形態について説明する。図1は、本発明にかかる物流支援システム1の全体構成図を図示したものである。物流支援システム1は、物流処理局2と事業局3とからなる構成を基本的な構成として有するものであるが、この事業局3の構成に応じて、物流処理局2と事業局3とを物流指示情報その他の情報伝達手段4により接続することもでき、さらには利用局5を設け、これを事業局3に対して申込情報伝達手段6により接続した構成ともなし得るものである。

【0013】物流処理局2は、事業局3から物流指示情報または集金指示情報を受けて、それに対応する荷物の回収と、利用料金の回収にかかる情報処理及び物流業務にかかる処理を行うもので、図示のように7A、7B、7Cとして三箇所（例えば、「東京」、「札幌」、「福岡」の三箇所）に中央処理局7を設けて、各中央処理局7A、7B、7Cをそれぞれ専用の通信回線網8で接続する一方、各々を管轄する地域処理局9・・・を同じく通信回線網8で各中央処理局7A、7B、7Cのいずれかに接続して構成されている。この物流処理局2は、物流処理の効率化を考慮して、三箇所に中央処理局7を設ける構成を採用してあるが、中央処理局7の設置数自体は、これに限定されることはなく、これらを統括して中央処理局7を1つにしたり、もちろんさらに分散させて設置数を増やしても良い。なお、中央処理局7と地域処理局9との具体的な構成については後述する。

【0014】事業局3は、主に一般の個人ユーザーを対象にした商品やサービスの提供を行う場合に必要な情報処理を行うもので、事業内容により種々の業者が考えられるが、ここでは、その一般的な例として、物流指示情報の生成処理手段10aと、申込情報受信処理手段10b及び集金指示情報の生成処理手段10cを有するデータ処理装置10Aを自局内に備えた家庭用電子化製品のメ

4

ーカー（以下「家庭メーカー」という）を事業局3Aとしてある。また図面には、このほかの事業局3の一例として、3B、3Cの2つの事業局を示してあるが、事業局3Bは、少なくとも物流指示情報の生成処理手段10aと集金指示情報の生成処理手段10cを有するデータ処理装置10Bを自局内に備えた通信教育業者、事業局3Cは、同じく物流指示情報の生成処理手段10aと集金指示情報の生成処理手段10cを有するデータ処理装置10Cを自局内に備えた商品の品質検査業者を想定している。

【0015】事業局3Aに備えられるデータ処理装置10Aは、物流指示情報の生成処理手段10aと、集金指示情報の生成処理手段10cとを備えた装置であって、一般的なコンピューターまたは携帯可能な情報端末装置でよく、コンピューターの場合、その規模は、パーソナルコンピューター（いわゆるパソコン）程度のものから、ワークステーション或いは大型汎用機程度のいずれでも良い。なお、生成処理手段10aとしては、例えば、物流指示情報の生成処理を行うプログラム、生成処理手段10cとしては、例えば、集金指示情報の生成処理を行うプログラムを記憶手段10dに格納したものとする考えられる。

【0016】このデータ処理装置10Aは、物流指示情報の生成処理手段10aと集金指示情報の生成処理手段10cを備えるほか、後述の如く、利用局5Aを設ける関係で、申込情報の受信処理を行うプログラムを申込情報の受信処理手段10bとしてその記憶手段10dに格納したものとなっている。このようにデータ処理装置10Aは、少なくとも物流指示情報の生成処理手段10a、集金指示情報の生成処理手段10c及び記憶手段10dを有すればよく、その他の具体的な構成は利用局5Aを設けるか否かさらには、事業局3A内のシステムの構成に対応して構成することができる。

【0017】ここで、データ処理装置10Aの生成する物流指示情報について説明すると、この情報は、事業局3から物流処理局2に出される情報であって、後述する個人ユーザーからの申込情報に基づいてその申込み内容に対応する物流処理を行う場合に必要な情報（何をどこに回収しにいけばよいのか、何をどこまで運ぶのかといふことを確定させるのに必要な情報）である。詳しくは後述するが、例えば事業局3Aの場合なら、「プリンターを利用局5A（東京都港区虎の門）まで回収しない」といった内容であり、これをコンピューター読取可能なした情報である。これの具体的な項目としては、電話番号、日付、ユーザー名、ユーザー住所（回収の宛先）、修理品名などが考えられる。なお、集金指示情報については後述する。

【0018】また、物流処理局2の中央処理局7Aと事業局3との関係でさらに付言すれば両局のデータ処理装置（13Aと10A）の双方の記憶手段（13dと10

(4)

特開平11-184913

5

d) に共通情報の記憶部を設けるとともに、前述するコード情報や配送管理情報、回収済情報などの情報をレコードフォーマットの共通する共通情報とし、さらに当該共通情報を送受信するなどして相互交換可能にすれば、当該共通情報をもって物流処理局2と事業局3の2局間におけるシステム1上の物流状況を一元管理できるようになる。

【0019】次に、物流支援システム1は、基本的な構成として、この事業局3と物流処理局2とからなる構成を有すればよいが、事業局3の構成に応じて、両局を物流指示情報その他の情報伝達手段4により接続した構成とすることもできる。

【0020】この情報伝達手段4は、事業局3の生成した物流指示情報を物流処理局2内に設けられた中央処理局7に送信して伝達したり、逆に中央処理局7から後述する発送情報を受信するなどして情報の伝達を行うためのものであり、具体的には種々の手段が考えられるが、図示したものでは、事業局3Aのデータ処理装置10Aで生成した物流指示情報を中央処理局7Aに伝達するための公衆回線4a及びモ뎀を含む無線通信手段を想定してある。もちろん、この他、無線通信手段としてもよく、例えば、事業局3A内に電波の送信器を設けるとともに、中央処理局7Aにこれを受ける電波の受信器を設けて、事業局3Aで変換した物流指示情報の電波を送受信して伝達する無線通信手段とすることもできる。要は、事業局3で生成した物流指示情報その他の情報を中央処理局7との間で送受信して伝達できれば良いのである。

【0021】なお、事業局3Bと3Cの場合は、情報伝達手段4により物流処理局2に接続しない構成としてある。事業局3Bの場合は、自局内で生成した物流指示情報をデータ処理装置10Bによってリストに印刷し、このリストをファクシミリを用いて中央処理局7Bに伝達することとし、事業局3Cの場合は、データ処理装置10Cで生成した物流指示情報を外部記憶媒体（例えば磁気テープ）に記憶してこの外部記憶媒体を配送して中央処理局7Cに伝達することとしている。

【0022】以上のように物流支援システム1は、物流処理局2と事業局3とからなる構成を基本的な構成として有するが、この両局からなる構成に利用局5を申込情報伝達手段6により接続した構成とすることもできる。利用局5は、事業局3から提供される商品の購入やサービスの利用に付随する情報処理を行うもので、ここでは、事業局3宛に商品やサービスの提供の申込みを行うときに必要な申込情報を生成するデータ処理装置12を備えた一般的な個人ユーザーを想定している。この場合のデータ処理装置12には、種々のものが考えられるが、もっとも好適なものとしては、図示しないキーボード及びディスプレイ装置を備えたパソコンを設け、このパソコンに申込情報生成処理手段12a（例えば所定の

情報入力画面と入力した情報を記憶する記憶部とを連動させるプログラム）を格納して、申込情報の生成処理手段12a付きとしたデータ処理装置12とすることができる。

【0023】さらに、利用局5Aを設ける場合は、この申込情報の生成処理手段12a付のデータ処理装置12を申込情報伝達手段6により事業局3に接続して、申込情報を伝達するのが好適しい。この場合の申込情報伝達手段6としては、利用局5Aのデータ処理装置12と、10 データ処理装置10Aとを公衆回線4aを介して接続し、当該データ処理装置12内で通信プログラムを起動して伝達する有線通信手段が好適である。もちろん利用局5Aのように申込情報の生成手段12aを備えてあっても、生成した申込情報をリストに記載してこのリストをファクシミリで送信する利用局5Bとしたり、申込情報を電話で事業局3に伝達する利用局5Cのようにも良い。要は、利用局5を設ける場合は生成した申込情報を所定の事業局3に伝達できれば良いのである。

【0024】なお、物流支援システム1は、利用局5を設けない構成でもよいが、その場合には、例えば所定の申込用紙に個人ユーザー自らが必要事項を記入して申込情報を生成し、これを何らかの手段、例えば、電話やファクシミリで所定の事業局3に伝達することになる。

【0025】ここで、利用局5の生成する申込情報について説明すると、この情報は、個人ユーザーが家電製品の修理を事業局3Aに申し込んだり、或いは事業局3Bなら通信教育の教材の発送を申し込むなど、事業局3に対して、商品やサービスの提供を申込み（依頼）するときに発生する情報であり、なかつこれをコンピュータ一覧取可能にしたもので、具体的な項目には、例えば、電話番号、日付、ユーザー名、住所、申込内容などの項目が考えられる。

【0026】次に、中央処理局7は、図2に示すように、データ処理装置13と、プリンター14を備えるとともに、各中央処理局7A、7B、7Cのデータ処理装置13（13A、13B、13C）を通信回線8に接続してなっている。このデータ処理装置13は、事業局3からの物流指示情報を受信する物流指示情報の受信処理手段13aのほか、集金指示情報の受信処理手段13cを有しており、受信処理手段13aと受信処理手段13cとを設けることにより、受信した物流指示情報及び集金指示情報を各自適宜処理して、プリンター14から複数の送付状を発行できるように構成するほか、主要な情報を記憶する記憶手段13dを備えて構成してある。

【0027】地域処理局9は、全国各地に設けてあるが、呂々は、中央処理局7A、7B、7Cに対応して3つにグループ分けしてある。各地域処理局9は、それぞれにデータ処理装置9aを備えているが、そのそれぞれのデータ処理装置9aを通信回線8を介して、各グル

(5)

特開平11-184913

8

7
一づごとに中央処理局7A、7B、7Cの中のいずれかの局に接続してある。こうして、各地域処理局9をいずれかの中中央処理局7の管轄下に置き、後述のように各グループの管轄中央処理局7との間で物流指示情報その他の情報の送受信を行うように構成してある。

【0028】また上述したデータ処理装置13は、物流指示情報の受信処理手段13aと集金指示情報の受信処理手段13cのほかに、受信した物流指示情報を地域処理局9に対応してくくり分けするための振分処理手段13bと、後述するコード情報の生成処理手段13eさらに記憶手段13dとを有してなっている。なお、この振分処理手段13bは、事業局3からの物流指示情報と集金指示情報とが予め対応する地域処理局9ごとにくくり分けしてある場合には省略しても良い。

【0029】次に、以上の構成による物流システム1の好適な作用例について具体的に説明する。以下の説明では、中央処理局7の中から中央処理局7Aを例にとるとともに、事業局3を家電メーカーの事業局3Aとし、さらに、個人ユーザーが申込情報の生成処理手段12a付きのデータ処理装置12を備えた利用局5Aとなって物流システム1を構成している場合を例にとって説明する。なお、その他の作用例については後述する。

【0030】先ず、物流システム1において、事業局3を家電メーカーの事業局3Aとした場合、システムによる支援を効果的に説明し得る具体的な事例として、修理の必要な家電製品（以下「修理品」という）の配送及びその利用料金の回収にかかる物流業務（以下「修理品の物流業務」という）がある。そこで、以下修理品の物流業務を物流システム1上で実施する場合の処理を例にとって説明する。

【0031】修理品の物流業務の場合、物流システム1における処理は、個人ユーザーの修理申込みから始まり、修理品を回収してこれを修理業務を行う事業局3Aに配達するまでの処理（「修理品の回収処理」と、修理の完了した家電製品（以下「完了品」という）を個人ユーザーに配達して利用料金（修理料金）を回収する処理（「利用料金の回収処理」）とに大別することができる。

【0032】ここで、修理品の回収処理の一般的な内容を各局間の結合関係と情報の流れに着目して図示すると図3及び図4のようになるが、これを主要な処理単位ごとにブロック化して図示すると、図5のようになることができる。図5に示す通り、回収処理ではまずはじめに修理申込み31が行われる。この修理申込み31は、利用局5Aにおいて、個人ユーザーがデータ処理装置12を操作して申込情報生成処理手段12aを起動し、所望の申込情報aを生成することにより行われる。このとき生成される申込情報aには、例えば電話番号、日付、個人ユーザー名、住所、修理品名、故障内容等の項目が含まれる。これに統いて、ユーザーが申込情報aの伝達処

理32を行う、これにより、申込情報aを公衆回線4aを経由して、事業局3Aに伝達りすることができる。なお、修理申込み31と伝達処理32の前に個人ユーザーが事前に電話その他の手段により事業局3Aに問い合わせて、例えば、修理料金の確認など、修理に関する相談（修理相談）をしてから修理依頼をする場合も考えられるが、その場合はこの修理相談をした上で、上述の修理申込み31と伝達処理32を実行すれば良い。

【0033】一方、これに続き事業局3Aにおいて、申込情報の受信処理33が行われる。これにより、事業局3Aのデータ処理装置10Aにおいて、申込情報の受信処理手段10bが利用局5Aのデータ処理装置12と連動して申込情報aを受信し、これを記憶手段10dの所定の記憶部（例えば、受注DB）に記憶することになる。この処理によって、事業局3Aに対して個人ユーザーの修理申込みが行われた、すなわち、事業局3Aがその修理申込み（依頼）を受け付けたことになる。統いて、事業局3Aにおいて回収指示情報cの生成処理34が行われる。これは、物流指示情報の生成処理手段10aが起動して、受注DB内の申込情報aから回収指示情報cを生成して所定の記憶部（例えば、回収情報記憶DB）に記憶するものである。

【0034】ここで、この回収指示情報cについて説明すれば、この情報は、事業局3Aに集められた申込情報aに基づき、物流処理局2に対して個人ユーザーの修理品の回収依頼を出すための情報であって、各利用局5Aから各自の申込みを受け付けてその個々の申込内容に対応する修理品の回収依頼を一括して物流処理局2宛に出すのに必要な情報で、コンピューター読み可能にしたものである。具体的な項目として、電話番号、日付、個人ユーザー名、住所、修理品名などの項目が考えられる。また、項目の中に個人ユーザーの住所が含まれているため、これを物流処理局2からみれば、どこに何を回収しに行けばよいのかということを確定するための物流指示情報である。この点で回収指示情報は、物流指示情報の一態様といふことができる。

【0035】そして、この回収指示情報cの生成後、事業局3Aにおいてその伝達処理35が行われる。これは、情報伝達手段4により、回収指示情報cを中央処理局7Aに一括して伝達するものである。また、これと同時に中央処理局7Aでは、回収指示情報cの受信処理が行われるが、これにより、受信処理手段13aが回収指示情報cを一括して受信して、これを記憶手段13dの所定の記憶部（例えば修理受注DB）に記憶する。こうして、中央処理局7Aでは、回収指示情報cを一括して受信できることになり、したがって、中央処理局7Aは、どこに何を回収しにいけば良いのかを確定するのに必要な情報、すなわち物流指示情報を一度に得たことになる。このことを事業局3Aからみると、事業局3Aは、修理品を回収するという本来の物流業務を事業局3

(6)

特開平11-184913

9

Aで行わざ、当該物流業務に必要な情報を物流処理局2に伝達するだけで済ませることができて、自局内の処理を軽減して、その分修理業務に専念し得ることを意味するものである。また、以上のように、物流処理局2と事業局3Aとを情報伝達手段4により接続する場合には、所定の情報処理が自動的に行われ、これにより、回収指示情報cを一時に把握できるので、特に事業局3Aの申込情報の件数が多数ある場合は好適である。なお、両局を接続しない場合はそれに代わる処理を入手を介して行わざるを得ないことになる。

【0036】次に、中央処理局7Aで送付状発行処理36を行う。これは、振分処理手段13bにて、中央処理局7Aで管轄する各地域処理局9の中から、回収指示情報cの各明細ごとにその宛先（個人ユーザーの住所）に最寄りの地域処理局9を決定して、各明細を各地域処理局9単位で分割し、これにより、中央処理局7Aの管轄する各地域処理局9ごとにくくり分けした送付状を発行するものである。地域処理局9は、中央処理局7A、7B、7Cのいずれの管轄下にあっても、それぞれ受け持ち配達区域があって、各地域処理局9ごとに配達するわち修理品の回収に向かう区域が異なるので、この各地域処理局9の担当する配達区域に応じて、回収指示情報cの明細レコードを振分る（分割する）のである。この振分を行うことによって、最適な地域処理局9にその回収を担当させることができる。この点は、回収に要する時間を節約して効率的な回収を行い得る点で特に物流処理局2にとっての利点といつてできる。そして、振分後の回収指示情報cをもとにして往復の送付状eを発行すれば、地域処理局9ごとにくくり分けした往復の送付状eを発行することができる。これに続き、中央処理局7で、この送付状eと梱包資材fを回収を担当する地域処理局9に送付gする発送処理37を行うことになる。

【0037】一方、地域処理局9では、中央処理局7Aから往復の送付状eと梱包資材fの送付を受けて、送付状e（往路分）に記載されている宛先にしたがい、その往復の送付状eと梱包資材fを利用局5Aに配達する。なお、この送付状eは、往路分と復路分とが1組になり、それぞれ利用局5A、事業局3Aの宛先が記載された書面（伝票）である。

【0038】また一方で、利用局5Aでは、この送付状eと梱包資材fの送付を受けると、個人ユーザーが修理品hを梱包資材fを用いて梱包するとともに、これに送付状e（復路分）を貼着することができる。そうすれば、個人ユーザーは、この梱包済の修理品hを所定の受付所（例えばコンビニエンスストア）iに持ち込むことができる（図4参照）。このように、利用局5Aの個人ユーザーが事業局3Aに申込情報を伝達すると、その修理品の梱包に必要な梱包資材と復路分の送付状を受領できることになるから、後は、個人ユーザーは、その修理

10

品hを最寄りの受付所に持ち込むことができるのである。よって、個人ユーザーは、所定の情報処理を行うと、わざわざ修理品を事業局3Aに持ち込まなくてもよくなるので、その分手間が省けるほか時間も節約でき、これは個人ユーザーにとっての利点といつてできる。

【0039】そして、この受付所には、地域処理局9から定期的に回収車jが回収に回るため、この回収車jにより修理品hが送付状e及び梱包資材fとともに、地域処理局9に持ち込まれる回収処理38が行われることになる。続いて、地域処理局9ではこの修理品hの回収をまつて、発送データkをデータ処理装置9aから入力して中央処理局7Aに伝送する一方、当該修理品hを中央処理局7Aに発送する処理39を行うことになる。なお、以上のように、個人ユーザーは、自ら修理品hを持ち込むことができるが、その代わりに修理品hの回収依頼（集荷）を地域処理局9に直接申し込み、これを受け、地域処理局9から利用局5Aに集荷するようにしても良い。

【0040】中央処理局7Aではこの修理品hの入荷を受けると、到着データを入力し、この到着データと当該発送データkとを照合して対応するコード情報を生成する。この当該コード情報は、カード1に印刷され、処理40により、カード1として当該修理品hに貼着される。これと相前後して、この到着データを管轄地域処理局9に返送することとする一方、事業局3Aにも伝送する。このときの到着データを上述した共通情報として中央処理局7Aと事業局3Aとの相互交換を可能にすれば、修理品hの物流状況を両局間で管理することができる。

【0041】さらに、中央処理局7Aにおいてカード1付の修理品hを事業局3Aに配達する処理41が行われる。こうして、修理品hが利用局5Aから修理を請け負う事業局3Aに配達されることとなる。このように、修理の申込みからその受注さらには修理品を回収するまでにあたり、事業局3Aは、修理品hを配達したり保管したりといった物流業務にかかる処理を行わず、所定の情報の受信や生成といった一連の情報処理を行なうだけであり、当該物流業務は専ら物流処理局2が代行して行うことになっている。このように、事業局3Aは、所定の情報処理を行なうだけで修理品hの保管や配達といった物流業務には関与しなくても良く、その分本業となる修理業務に専念して業務効率を向上させることができるようになる。

【0042】一方、利用局5Aとしても申込情報を生成してこれを事業局3Aに伝達する情報処理を行うと、わざわざ修理品hを事業局3Aに持ち込まなくても良くなり、後はその修理品hを最寄りの受付所に持ち込むだけで済ませるのである。従来のように、自分で事業局3Aやその特約店に修理品を持ち込むなどの手間がか

(7)

特開平11-184913

11

からないだけ、簡便かつ気軽に修理を依頼することができる。

【0043】次に、利用料金の回収処理について説明する。この処理を修理品の回収処理同様にして図示すると図6のようになり、をブロック化して図示すると図7のように表すことができる。先ず、完了品の回収処理4.2が行われる。これは、中央処理局7Aから定期的に回収車を事業局3Aに回して集荷することによりなし得る処理である。これと相前後して、事業局3Aにおいて集金指示情報nの生成処理4.3が行われる。この処理は、集金指示情報の生成処理手段10cにより、集金指示情報nを上述した到着データに基づいて生成するものである。これに続き、集金指示情報nの伝達処理4.4が行われる。これと後続の処理4.5を行うことにより、生成した集金指示情報nを中央処理局7Aに伝達して、局内のデータ処理装置13Aに取り込むことができる。

【0044】ここで、この集金指示情報nについて説明すると、この集金指示情報nは、修理品hの修理に要した料金を個人ユーザー及び修理品hごとに明記した明細情報または個人ユーザー単位に金額を合算した情報であって、「どこに彼らの金額を集金しにいければ良いのか」を確定するための情報をコンピューター読み取可能にした情報である。具体的な項目としては、上述した回収指示情報cの項目に集金額(修理料金)の項目を含めたものとほぼ同等でよいが、回収指示情報cと共通する項目を除いて電話番号と集金額とを含めた情報としても良い。中央処理局7Aでは、この集金指示情報nを受信することにより、どこにいくらの金額を集金しにいければ良いのかを把握できることになる。

【0045】中央処理局7Aではこの集金指示情報nを受信する処理4.5を行うとともに、この集金指示情報nまたはこれと到着データとの照合後のデータにもとにして、振分処理を実行し、完了品の配送を担当する担当地域処理局9ごとにくくり分けした送付状oを発行し、担当地域処理局9宛に完了品の配送する(4.6)。このとき、完了品には、上述したカード1のはかに送付状oを貼着してあるがこの送付状oには、当該完了品の修理に要した修理料金の情報が含まれているから、送付状oは、完了品の配送先とともにその配送時に集金すべき金額を表示したものとなる。こうして、完了品を受けた担当地域処理局9では、この送付状oの記載にしたがい、完了品を対応する利用局5Aに配送し、そのとき同時に修理料金の回収(4.7)をも行えるのである。

【0046】担当地域処理局9では完了品の配送を終了したら、データ処理装置9aから配送完了情報pと、料金の回収済情報qを入力する。そしてこのとき入力された配送完了情報pと、料金の回収済情報qとが中央処理局7Aに集められることとなる(4.8)。中央処理局7Aでは、この配送完了情報pと、料金の回収済情報q

12

を所定の記憶部に記憶させることにより、完了品の配送状況と料金の回収状況を監視することができる。さらに、中央処理局7Aからこの2つの情報、すなわち、配送完了情報pと、料金の回収済情報qとを事業局3Aに伝達すれば、両局間で一元的な管理をすることができる。

【0047】なお、以上の修理品の回収処理と利用料金の回収処理において、利用局5Aを利用局5Bまたは利用局5Cとした場合はい、すれも場合も、申込情報の伝達処理3.2と申込情報の受信処理3.3を除くその他の処理を上記同様にすれば良い。すなわち、利用局5Bまたは利用局5Cとする場合には、申込情報の伝達手段6を有さないので、データ処理装置1.2を操作して申込情報を生成したら、この申込情報をファクシミリ装置または電話その他の手段で事業局3Aに伝達する。一方事業局3Aでは個人ユーザーからの申込情報を受領したら、図示しない入力操作装置(例えばキーボード)を操作して、その内容に応じた情報をデータ処理装置10Aに記憶させる操作を行えば良く、その後は上記同様に処理することができる。このように申込情報の伝達手段6を有しない場合には、それだけ構成を簡素化できるものの、これを有する場合に比べて処理の煩雑さを避けられないから、利用局5Aを設ける場合には、申込情報の伝達手段6も並設するのが良い。

【0048】次に、以上の構成において、事業局3Aの代わりに事業局3Bとした場合と事業局3Cとした場合について説明するが、基本的な処理は、事業局3Aの場合と共通するので、異なる点を中心に説明する。

【0049】事業局3Bは、上述の通り利用局5Aの個人ユーザーを対象にした通信教育事業者を想定している。この事業局3Bは、利用局5Aの個人ユーザーからの申込みを受けて、自社の教材(例えば、粘土と着色具)を利用局5Aに発送する。一方、利用局5Aでは、受領した教材をもとにして独自の作品(例えば、湯飲み)を個人ユーザー自ら製作して成作品とする。

【0050】そして、この成作品を当該ユーザーが事業局3Bに返送すると、事業局3Bではこれを自局で処理し(成作品が湯飲みの場合は窓の中で焼き上げる)、その最終成作品となる採点品を採点結果とともに利用局5Aに返送するというものである。以下、この程の業務(「通信教育業務」という)を物流システム1上で実施する場合について、修理品の物流業務との相違点を中心に説明する。

【0051】通信教育業務の場合物流システム1上の処理は、修理品の物流業務同様に2つの大別できるが、この場合は、図8及び図9に示すように、個人ユーザーからの申込みから始まって、該当する教材の配送及び利用料金の回収にかかる物流処理(以下「教材等の配送処理」という)と、最終成作品となる採点品の配送にかかる処理(以下「採点品の配送処理」という)に大別する

(8)

特開平11-184913

13

ことができる。

【0052】教材等の配達処理の場合における物流システム1上の処理を主要な処理単位ごとにブロック化して図示すると、図8のようになる。図8には、左側半分に利用局5Aにおける修理品の回収処理49を図示するとともに、右側半分に教材等の配達処理50を図示しており、回収処理49と配達処理50との間で共通するものについては両者を矢印で結び付けてある。

【0053】先ず、教材等の配達処理50では、教材の申込み51が行われる。これは、回収処理49における修理申込み31に相当するもので、これを行うことにより、利用局5Aにおいて申込情報を生成する。次いで、申込情報の伝達52、申込情報の受信処理53が続いて行われるが、これは、申込情報伝達処理32、申込情報の受信処理33と共通するので詳しい説明を省略する。

【0054】次に、事業局3Bにおいて、教材発送情報を生成する処理54を行う。これは回収指示情報の生成処理34に相当するものであるが、このとき生成される教材発送情報は、「どの教材（例えば、粘土）をどこに（利用局5A）に配達し、そのときいくらの金額を教材の代金として集金すればよいのか」を確定するための情報で、コンピューター読み取り可能にした情報である。この教材発送情報は、上述の物流指示情報と集金指示情報の双方の要素を併せ持つものであるから、中央処理局7Bでは、事業局3Bから、物流指示情報と集金指示情報を同時に受領することになる。またこれに続いて、教材発送情報の伝達処理55が行われ、さらに相前後して事業局3Bから中央処理局7B宛に教材の発送処理が行われる。

【0055】一方、中央処理局7Bでは、教材発送情報の伝達を受けて往復送付状の発行処理56（送付状発行処理36と共通）を行うとともに、受領した教材にこの送付状を貼り、この教材を地域処理局9を経由して各利用局5A宛に配達し、このとき、その教材の代金も集金する（57）。こうして、物流処理局2に物流業務を代行させたことによって、教材が利用局5Aの個人ユーザーに届けられ、その代金の回収が行われることになる。

【0056】そして、利用局5Aにおいては、受領した教材をもとにして自ら所望の作品を製作することができるが、作品の完成をまって以下の処理が行われる。まず、個人ユーザーは、完成した作品（成果品）を梱包して復路の送付状を貼り、これを所定の受付所に持ち込みまたは集荷依頼をする。すると、回収車が他の成果品とともにこれを回収する教材の回収58が行われ、このときの成果品が地域処理局9に持ち込まれる。また、地域処理局9では、上記の発送処理39同様に、発送データの入力と、成果品を中央処理局7Bに発送する発送処理59を行う。さらにまた、中央処理局7Bでは、発送データと到着データとを照合してコード情報を生成する

14

とともに、これをカード印刷する処理60を行い、受領した成果品に当該カードを貼り、事業局3Bに配達する処理61を行う。こうして、成果品が事業局3Bに配達されることとなる。以上のように、通信教育業務の場合においても、事業局3Bは、教材の配達その他の物流業務をおこなわず、所定の情報処理を行うだけで、教材の配達とそれの代金回収が行われることになる。

【0057】次に、採点品の回収処理であるが、これを主要な処理単位にブロック化すると図9のようになる。10 ここでも、図8同様に、左側半分を利用局5Aにおける回収処理62を図示するとともに、右側半分に利用局5Bにおける教材の配達処理63を図示しており、回収処理62と配達処理63との間で共通するものについては両者を矢印で結び付けてある。

【0058】先ず、採点品の回収処理64が行われる。これは、完了品の回収処理42に相当するもので、中央処理局7Bから回収車を定期的に事業局3Bに回して行うことができる。次いで、事業局3Bにおいて物流指示情報の生成65、物流指示情報の伝達66の各処理が行われる。これらの処理と相前後して、中央処理局7Bに対しても採点品の発送処理68が行われ、これをもって採点品が中央処理局7Bから地域処理局9を経由して利用局5Bに配達されることになる。その後、所定の情報入力69が行われる。

【0059】以上のように、事業局3Bの場合においても、最終成果物となる採点品の配達と教材の利用料金の回収業務について、事業局3Bは所定の情報処理を行うだけであり、事業局3Bが本来行う物流業務は、物流処理局2が代行して行っていることになる。よって、事業局3Bは本来の業務に専念できることとなって業務効率が向上し、また一方、利用局5でも成果物を最寄りの受付所に持ち込めばよく至って簡便である。

【0060】次に、事業局3Cの場合、この場合は商品の品質検査業者であって、利用局5Aからの申込みを受けて、利用局5Aが提示する試料（サンプル）を回収して自局内で所定の品質検査を行い、検査後にサンプルと検査結果の報告書または結果を記録した外部記憶媒体を事業局3Cから利用局5Aに返送するというものである。この場合の業務（受託品質検査業務）も物流支援システム1で実施することが可能であるが、その場合のシステム1の作用は修理品の物流業務と同様なので詳しい説明を省略する。もちろんこの場合においても、修理品の物流業務同様、事業局3C、利用局5Aの双方にとって有益であるのはいうまでもない。

【0061】さらに、事業局3Aについても、修理品の物流業務以外に物流支援システム1による支援が想定されるものとして、パソコンや携帯情報端末などのコンピューター装置のいわゆるバージョンアップ（プログラムの改定）にかかる物流業務やプリンターや複写機のトナーの補充・充填のような消耗品の物流業務がある。いず

(9)

特開平11-184913

15

16

れも修理工品の物流業務と同様であるが、個人ユーザーからの申込み（依頼）を事業局3Aで受領するとともに、当該申込みに対応する改定前プログラムを記録した記憶媒体やトナー等の使用済の消耗品回収指示情報を生成して中央処理局7Aに伝達するなどして、修理工品の場合と以下同様にして行うことができる。

【0062】以上の実施例の説明では、事業局3Aと中央処理局7Aとの関係を中心に、事業局3Aにおいて、中央処理局7Aの管轄する地域処理局9を経由して利用局5Aに配送する場合を例にとって説明したが、中央処理局7Aが事業局3Aから、中央処理局7Bまたは中央処理局7Cの管轄地域処理局9を経由して配送すべき情報を受領する場合も本発明は含むものである。すなわち図10に示すように、中央処理局7Aが事業局3Aから中央処理局7A自ら処理すべき情報を受領する場合、中央処理局7Bまたは7Cが処理すべき情報を受領する場合も本発明は含むものである。またそのほか、同図(B)のように、事業局3Aを中央処理局7A、7Bまたは7Cに対応して3個設置している場合も本発明は含むものである。

【0063】なお、以上の実施例の説明で示した手順は、一例であって、本発明の目的を変更しない範囲でその順序を適宜変更することが可能である。また、事業局3の事業内容も、いわゆる品下げ交換（代用品を事前に発送と同時に交換品の回収と集金を行うような業務）のごとき業務にも適用し得るものである。さらには、上記の実施例では、物流指示局2が物流指示情報と集金指示情報の双方の情報を順にまたは同時に受領する場合について説明したが、本発明では、集金指示情報を受領しない場合もさむものである。例えば、物流に要した代金を別の手段で回収する（例えば、口座の自動振替にて回収し、現金の受渡しを行わない）ようにして集金指示情報を事業局3で生成せずに物流指示局2に伝達しない場合

である。

【図面の簡単な説明】

【図1】本発明にかかる物流支援システム全体を示すシステム構成図である。

【図2】中央処理局を中心に図示した物流支援システムの要部構成図である。

【図3】物流支援システムの運用例を図示した説明図である。

【図4】図3の後続の運用例を図示した説明図である。

10 【図5】図3の運用例を処理単位にブロック化して図示した説明図である。

【図6】図4の後続の運用例を図示した説明図である。

【図7】図6の運用例を処理単位にブロック化して図示した説明図である。

【図8】物流支援システムの別の運用例をブロック化して図示した説明図である。

【図9】図8の後続の運用例を図示した説明図である。

【図10】中央処理局と事業局との関係の他例を図示した説明図である。

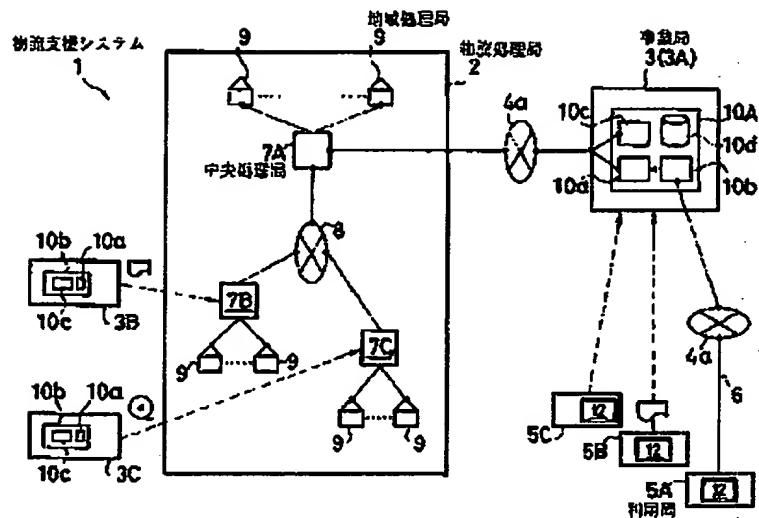
20 【符号の説明】

1	物流支援システム
2	物流処理局
3	事業局
3A,3B,3C	事業局
4	情報伝達手段
5	利用局
5A,5B,5C	利用局
6	申込情報伝達手段
7	中央処理局
7A,7B,7C	中央処理局
9	地域処理局
10A,10B	データ処理装置
10C,12,13	データ処理装置

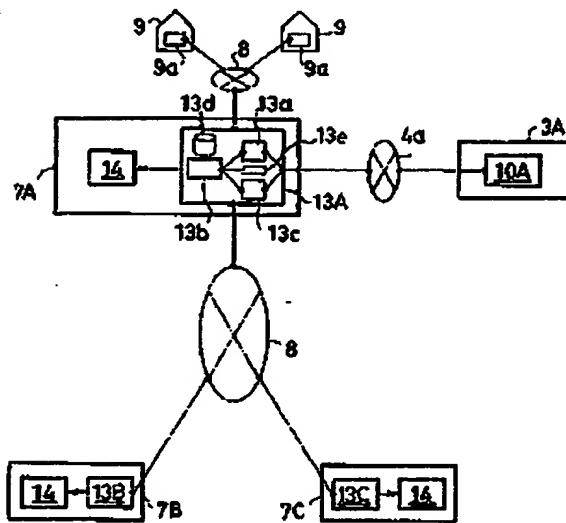
(10)

特開平11-184913

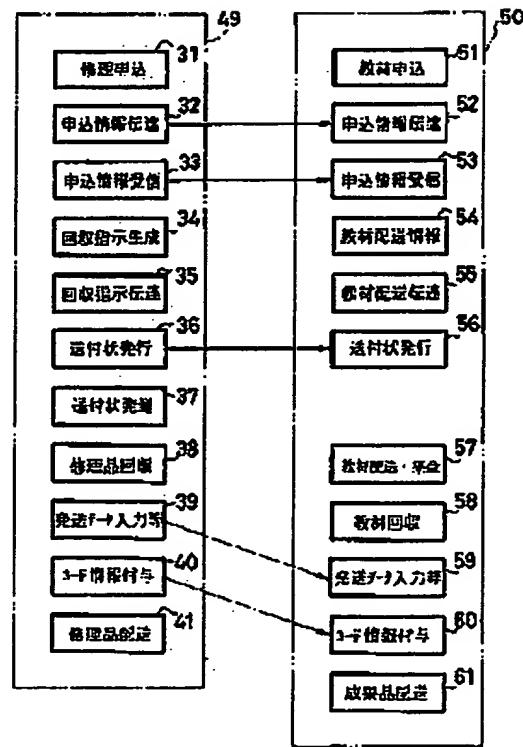
【図1】



【図2】



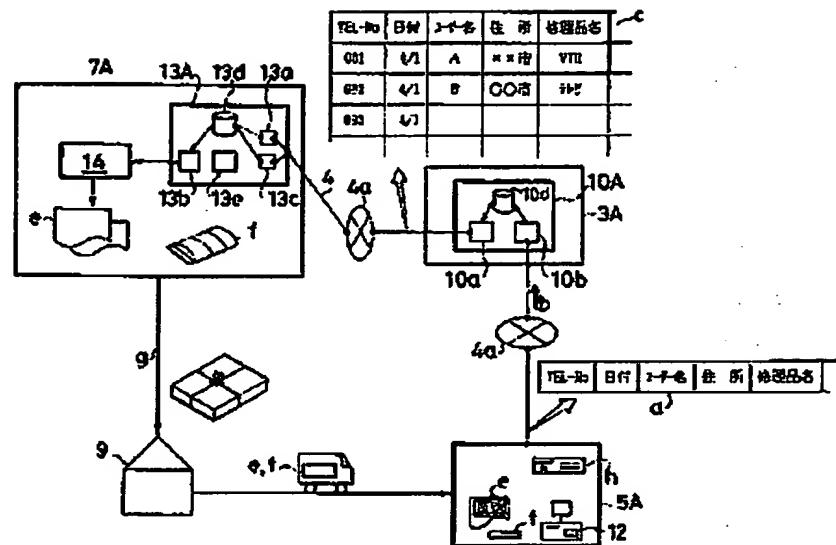
【図3】



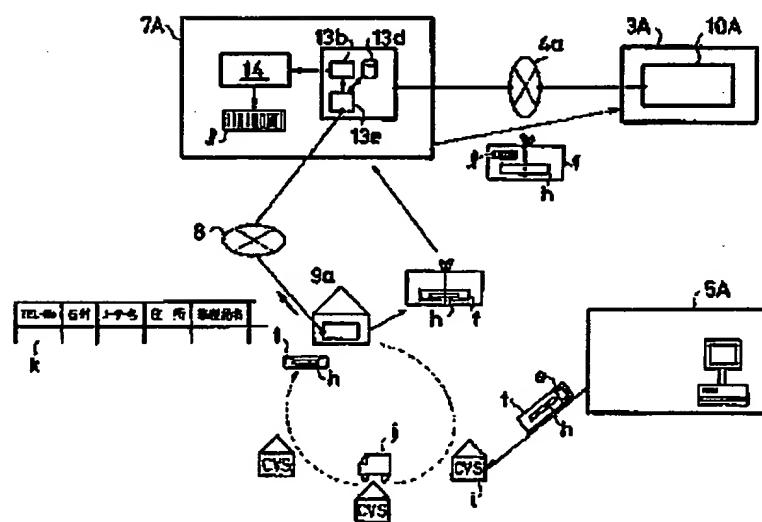
(11)

特開平11-184913

[図3]



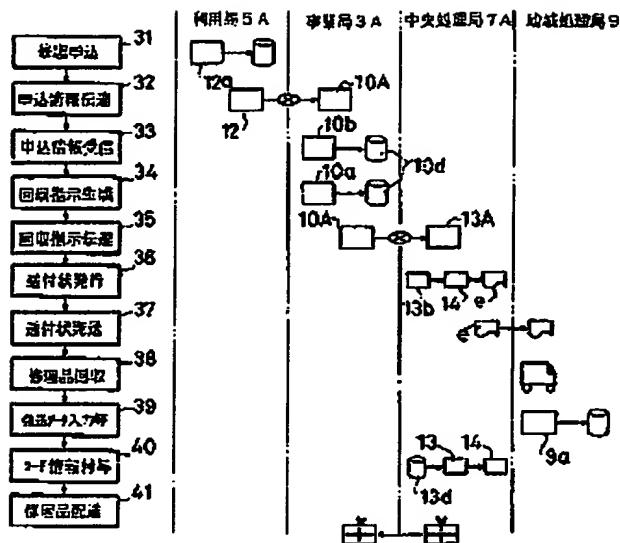
[図4]



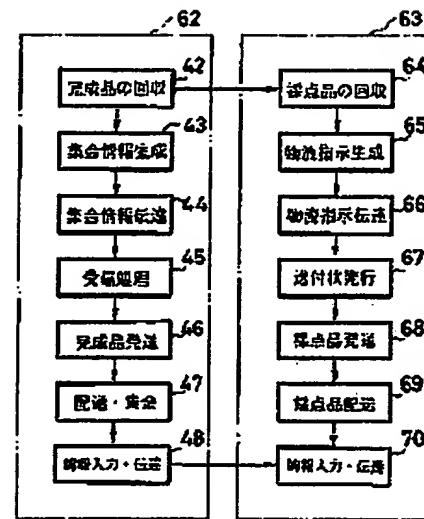
特開平11-184913

(12)

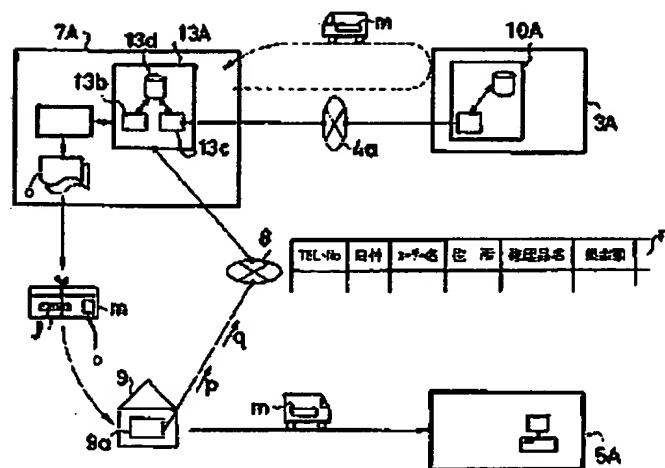
【図5】



【図9】



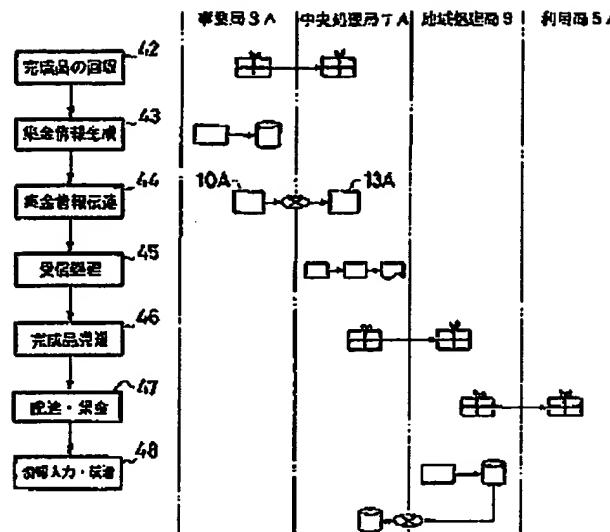
【図6】



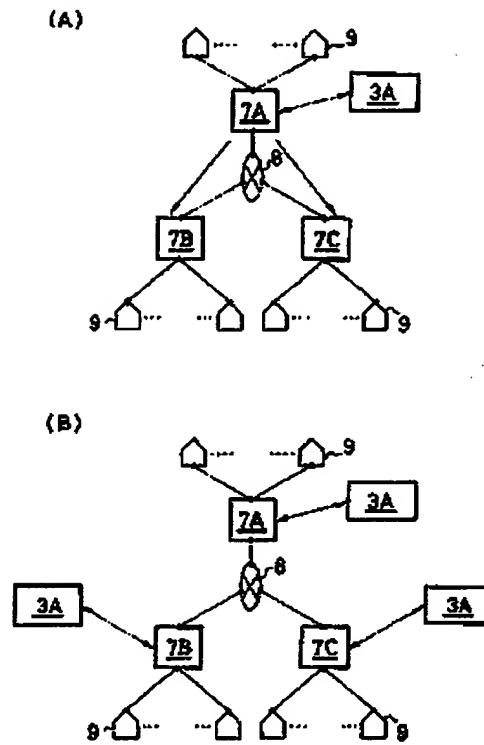
特許平11-184913

(13)

【図7】



【図10】



PATENT ABSTRACTS OF JAPAN

(11)Publication number : **11-184913**
 (43)Date of publication of application : **09.07.1999**

(51)Int.CI.

G06F 17/60

(21)Application number : **09-353351**
 (22)Date of filing : **22.12.1997**

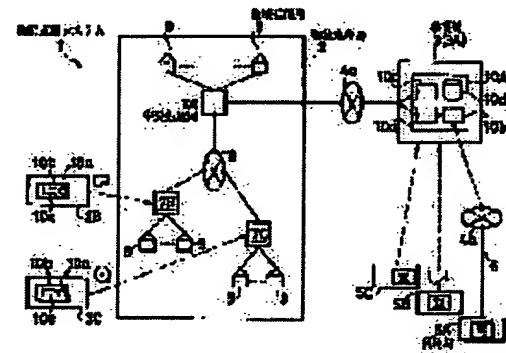
(71)Applicant : **YAMATO TRANSPORT CO LTD**
 (72)Inventor : **EGASHIRA TETSUYA**

(54) LOGISTICS SUPPORT SYSTEM

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a logistics support system that makes a logistic job of a repaired product or the like efficient and is useful for both a user and an enterprise.

SOLUTION: A logistic system 1 is composed of a managing station 3 equipped with a generation processing means 10a of logistic instruction information and a data processing device 10A having a generation processing means 10c of money collection instruction information and a logistic processing station 2. The logistic processing station 2 has a structure that a central processing station 7 is connected to a regional processing station 9 with a communication line network 8 and, at the same time, has a data processing device 13. The logistics support system 1 is constituted so that this data processing device 13 receives the logistic instruction information or the money collection instruction information and issues an invoice corresponding to the received information.



LEGAL STATUS

[Date of request for examination] **11.03.1998**

[Date of sending the examiner's decision of rejection] **25.01.2000**

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

*** NOTICES ***

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

CLAIMS**[Claim(s)]**

[Claim 1] The enterprise station equipped with the data processor which has the generation processing means of PD directions information, and the generation processing means of collection-of-money directions information, It is the PD support system which has the configuration which consists of a PD processing station. The above-mentioned PD processing station While having the configuration which comes to connect a central-process station and two or more local processing stations with a communication line network The PD support system constituted so that the letter of sending corresponding to the information which equipped this central-process station with the data processor, received this data processor, and received the above-mentioned PD directions information or collection-of-money directions information may be published.

[Claim 2] The enterprise station equipped with the data processor which has the generation processing means of PD directions information, and the generation processing means of collection-of-money directions information, It is the PD support system which has the configuration which consists of a use station equipped with the data processor which has a PD processing station and an application information generation processing means. The above-mentioned PD processing station While having the configuration which comes to connect a central-process station and two or more local processing stations with a communication line network The PD support system constituted so that the letter of sending corresponding to the information which equipped this central-process station with the data processor, received this data processor, and received the above-mentioned PD directions information or collection-of-money directions information may be published.

[Claim 3] The PD support system according to claim 1 or 2 characterized by connecting mutually the data processor of said enterprise station and a PD processing station with the means of signal transduction.

[Claim 4] The PD support system according to claim 2 or 3 characterized by connecting mutually the data processor of said enterprise station and use station with the means of signal transduction.

[Claim 5] A PD support system given in either of claims 1-4 characterized by establishing a storage means to have the storage section of the information common to the data processor of said PD processing station, and the data processor of an enterprise station, and constituting the inter exchange between equipment of common information possible.

[Translation done.]

* NOTICES *

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the PD support system for supporting the PD business in connection with the teaching materials for correspondence courses etc. to the PD operating plan concerning a repair article, a recycled article, or returned goods.

[0002]

[Description of the Prior Art] As for the PD business in connection with a repair article, a recycled article, or returned goods, for example, the PD business in connection with the repair article of an electric product, it is common that it can divide roughly into the collection practices and its return business of a repair article. The collection practices of the repair article in this case are performed when a manufacturer collects those repair articles, while a user carries a repair article into a special agent or a mass retailer, and on the other hand, return business is performed, when a user visits to the receipt of a repair article.

[0003]

[Problem(s) to be Solved by the Invention] By the way, a user has to bring PD business, such as the above repair articles, for a repair article to a special agent etc. himself from the viewpoint of a user, and a problem is in the point of having required the troublesomeness and excessive time amount. On the other hand, from the viewpoint of a manufacturer, cost is needed for parts other than the original repair business of collection practices and returned-goods business of a repair article with a staff, and a problem is in the point that this is the adverse element of a profit. moreover -- if there is an adverse element of a profit -- a manufacturer -- this -- a product price and a service price -- not adding -- it does not obtain and it cannot be overemphasized that this is a problem also from the viewpoint of a user.

[0004] Then, when this invention person advances examination for the purpose of the increase in efficiency in PD business, such as the above repair articles, by preparing the processing station performed by executing PD business of the both sides of a user and a manufacturer by proxy, he used to attain the increase in efficiency of PD business, used to suggest the system which becomes useful to the both sides of a user and a manufacturer, and used to result in completion of this invention.

[0005]

[Means for Solving the Problem] The enterprise station which this invention equipped with the data processor which has the generation processing means of PD directions information, and the generation processing means of collection-of-money directions information in order to solve the above-mentioned technical problem, It is the PD support system which has the configuration which consists of a PD processing station. The above-mentioned PD processing station While having the configuration which comes to connect a central-process station and two or more local processing stations with a communication line network This central-process station is equipped with a data processor, and the description is in the PD support system constituted so that the letter of sending corresponding to the information which received the above-mentioned PD directions information or collection-of-money directions information, and received this data processor may be published.

[0006] This PD support system ***** and an enterprise office only perform information processing called generation and transfer of PD directions information and collection-of-money directions information, and a PD processing office can be made to execute PD business corresponding to the directions information concerned by proxy.

[0007] Moreover, the enterprise station which the PD support system equipped with the data processor which has the generation processing means of PD directions information, and the generation processing means of

collection-of-money directions information, It is the PD support system which has the configuration which consists of a use station equipped with the data processor which has a PD processing station and an application information generation processing means. The above-mentioned PD processing station While having the configuration which comes to connect a central-process station and two or more local processing stations with a communication line network This central-process office can be equipped with a data processor, and it can consider as the PD support system constituted so that the letter of sending corresponding to the information which received the above-mentioned PD directions information or collection-of-money directions information, and received this data processor may be published.

[0008] If it incorporates to the data processor in an intra office like this PD support system while receiving this in an enterprise office, since application information is generable in a use office in preparing a use office, PD directions information can be generated based on this, and it can transmit to a PD processing office.

[0009] moreover, the above -- also in which PD support system, it is desirable to have the configuration which connected mutually the data processor of said enterprise station and a PD processing station with the means of signal transduction, and to constitute a PD support system. Then, the PD directions information and collection-of-money directions information which were generated in the enterprise office can be transmitted to a PD processing office simple.

[0010] It is desirable to have the configuration which connected mutually the data processor of said enterprise station and use station with the means of signal transduction further again, and to constitute a PD support system. Then, the application information generated in the use office can be transmitted to a PD processing office simple.

[0011] Also in which PD support system, what establishes a storage means to have the storage section of common information in the data processor of said PD processing station and the data processor of an enterprise station, and constitutes the inter exchange between equipment of common information possible is desirable. In this case, informational unitary management is attained by sharing common information between equipment.

[0012]

[Embodiment of the Invention] Hereafter, the gestalt of suitable operation is explained as an example of the PD support system concerning this invention. Drawing 1 illustrates the whole PD support system 1 block diagram concerning this invention. Although the PD support system 1 has the configuration which consists of a PD processing office 2 and an enterprise office 3 as a fundamental configuration, the PD processing office 2 and the enterprise office 3 can also be connected with the means 4 of signal transduction of PD directions information and others, the use office 5 is formed further, and the configuration connected with the means 6 of application signal transduction to the enterprise office 3 can make this according to the configuration of this enterprise office 3.

[0013] The PD processing station 2 is what performs processing concerning the information processing and PD business which start recovery of the load corresponding to it, and recovery of a use tariff in response to PD directions information or collection-of-money directions information from the enterprise station 3. illustration -- like -- as 7A, 7B, and 7C -- three places (for example, "Tokyo" and "Sapporo" --) the local processing station 9 which has jurisdiction [each] while forming the central-process station 7 in three places of "Fukuoka" and connecting each central-process stations 7A, 7B, and 7C with the communication line network 8 of respectively dedication -- similarly ... is connected to either of each central-process stations 7A, 7B, and 7C with the communication line network 8, and it is constituted. Although the configuration which forms the central-process station 7 in three places is used for this PD processing station 2 in consideration of the increase in efficiency of PD processing, the number of installation of the central-process station 7 itself is not limited to this, it generalizes these, the central-process station 7 may be set to one, or, of course, it may be made to distribute further and it may increase the number of installation. In addition, about the concrete configuration of the central-process station 7 and the local processing station 9, it mentions later.

[0014] Although required information processing is performed and the contents of an enterprise think of various contractors when mainly performing offer of the goods for a general individual user, or service, the enterprise station 3 Here, as the general example, generation processing means 10a of PD directions information, The manufacturer (henceforth "home electronics maker") of the consumer electronics which equipped the intra office with data-processor 10A which has application information reception means 10b and generation processing means 10c of collection-of-money directions information is set to enterprise station 3A. Moreover, although two enterprise stations, 3B and 3C, are shown in the drawing as an example of the other enterprise

stations 3 The correspondence course contractor and enterprise station 3C which equipped the intra office with data-processor 10B in which enterprise station 3B has generation processing means 10a of PD directions information and generation processing means 10c of collection-of-money directions information at least The quality inspection contractor of the goods which equipped the intra office with data-processor 10C which similarly has generation processing means 10a of PD directions information and generation processing means 10c of collection-of-money directions information is assumed.

[0015] Data-processor 10A with which enterprise station 3A is equipped may be equipment equipped with generation processing means 10a of PD directions information, and generation processing means 10c of collection-of-money directions information, and, in the case of a computer, any of the thing of personal computer (so-called personal computer) extent to a workstation or large-sized general aviation extent are [it may be good at the information terminal unit in which a general computer or a general cellular phone is possible, and] sufficient as the scale. In addition, as generation processing means 10a, it is possible [it], for example that the program which performs generation processing of collection-of-money directions information should be stored in 10d of storage means as program and generation processing means 10c which performs generation processing of PD directions information, for example.

[0016] This data-processor 10A is equipped with generation processing means 10a of PD directions information, and generation processing means 10c of collection-of-money directions information, and also like the after-mentioned, is the relation which prepares use station 5A, and has become with what stored in 10d of that storage means the program which performs reception of application information as reception means 10b of application information. Thus, other concrete configurations can be further constituted [whether use office 5A is prepared and] corresponding to the structure of a system in enterprise office 3A that data-processor 10A should just have generation processing means 10a of PD directions information, generation processing means 10c of collection-of-money directions information, and 10d of storage means at least.

[0017] This information is the information taken out to the PD processing station 2 from an enterprise station 3, and when the PD directions information which data-processor 10A generates explains here, when performing the PD processing corresponding to those contents of an application based on the application information from an individual user mentioned later, it is required information (information required for what should just go to collect what where, and making it decide what to be carried how far). Although mentioned later in detail, if it is the case of enterprise station 3A, for example, it is the contents of "going to collect printers to use station 5A (Minato, Tokyo Toranomon)", and is the information which made computer reading of this possible. As a concrete item of this, the telephone number, a date, a user name, the user address (destination of recovery), a repair name of article, etc. can be considered. In addition, about collection-of-money directions information, it mentions later.

[0018] Moreover, if it adds further by the relation between central-process station 7A of the PD processing station 2, and the enterprise station 3, while preparing the storage section of common information in the storage means (13d and 10d) of the both sides of the data processor (13A and 10A) of both stations If information, such as code information mentioned later, and delivery management information, information that it collects, is made into the common information to which a record format is common, the common information concerned is transmitted and received further and inter exchange is made possible It has the common information concerned and comes to be able to carry out the unitary management of the PD situation on the system 1 for two games, the PD processing station 2 and the enterprise station 3.

[0019] Next, although the PD support system 1 should just have the configuration which consists of this enterprise office 3 and a PD processing office 2 as a fundamental configuration, it can also consider both stations as the configuration connected with the means 4 of signal transduction of PD directions information and others according to the configuration of the enterprise office 3.

[0020] Although it can transmit to the central-process office 7 in which the PD directions information which the enterprise office 3 generated was prepared in the PD processing office 2, and this means 4 of signal transduction can be transmitted, or is for receiving the dispatch information later mentioned from the central-process office 7 conversely, and transmitting information and can specifically consider various means In what was illustrated, the wire communication means containing public line 4a for transmitting the PD directions information generated by data-processor 10 of enterprise station 3A A to central-process station 7A and a modem is assumed. Of course, while it is good also as a radio means, for example, forming the transmitter of an electric wave in enterprise office 3A in addition to this, the receiver of an electric wave which receives this in central-

process office 7A can be formed, and it can also consider as a radio means to transmit, receive and transmit the electric wave of the PD directions information changed by enterprise office 3A. What is necessary is in short, to transmit and receive the information on the PD directions information generated by the enterprise station 3, and others between the central-process stations 7, and just to be able to transmit it.

[0021] In addition, in the case of the enterprise stations 3B and 3C, it has considered as the configuration which is not connected to the PD processing station 2 with the means 4 of signal transduction. In enterprise station 3B, the PD directions information generated in the intra office is printed on a list by data-processor 10B, it presupposes it that this list is transmitted to central-process station 7B using facsimile, and, in the case of enterprise station 3C, it is supposed that the PD directions information generated by data-processor 10C is memorized to external storage (for example, magnetic tape), this external storage is delivered, and it transmits to central-process station 7C.

[0022] As mentioned above, although the PD support system 1 has the configuration which consists of a PD processing office 2 and an enterprise office 3 as a fundamental configuration, it can also be considered as the configuration which connected the use office 5 to the configuration which consists of both this station with the means 6 of application signal transduction. The use station 5 performs information processing which accompanies the purchase of goods and the use of service which are offered from the enterprise station 3, and when applying for offer of goods or service to the enterprise station 3, it assumes the common individual user having the data processor 12 which generates required application information here. Although various things can consider in the data processor 12 in this case, the personal computer equipped with the keyboard and the display unit which is not illustrated as most suitable thing can form, application information generation processing means 12 a (for example, the program which interlocks the storage section which memorizes the information inputted as the predetermined information input screen) can store in this personal computer, and it can consider as the data processor 12 which carried out with [of application information] generation processing means 12a.

[0023] Furthermore, when preparing use office 5A, it is desirable to connect the data processor 12 with [of this application information] generation processing means 12a to the enterprise office 3 with the means 6 of application signal transduction, and to transmit application information. A wire communication means to connect the data processor 12 of use station 5A and data-processor 10A through public line 4a as a means 6 of application signal transduction in this case, and to start and transmit a communications program within the data processor 12 concerned is suitable. Even if it, of course, has generation means 12a of application information like use station 5A, it is good even if [like use station 5C which indicates the generated application information on a list, and sets this list to use station 5B which transmits by facsimile, or transmits application information to the enterprise station 3 by telephone]. What is necessary is in short, just to be able to transmit the generated application information to the predetermined enterprise station 3, when forming the use station 5.

[0024] In addition, although the configuration of not forming the use station 5 is sufficient as the PD support system 1, in that case, the individual user himself will write down a need matter in a predetermined application form, and it will generate application information, and will transmit this to the predetermined enterprise station 3 with a certain means, for example, a telephone and facsimile.

[0025] When the application information which the use station 5 generates is explained here, this information As opposed to the enterprise station 3, such as applying for dispatch of the teaching materials of a correspondence course, if an individual user applies for repair of home electronics to enterprise station 3A or it is enterprise station 3B the information generated when applying for and (request) offering goods and service -- it is -- in addition -- and it is that of which computer reading of this was made possible, and items, such as the telephone number, a date, a user name, the address, and the contents of an application, can be considered in a concrete item.

[0026] Next, as shown in drawing 2, the central-process office 7 has come to connect the data processor 13 (13A, 13B, 13C) of each central-process offices 7A, 7B, and 7C with the communication line network 8 while being equipped with a data processor 13 and a printer 14. Others [a / of the PD directions information that this data processor 13 receives the PD directions information from the enterprise station 3 / reception means 13], By having reception means 13c of collection-of-money directions information, and preparing reception means 13a and reception means 13c The PD directions information and collection-of-money directions information which were received are edited suitably respectively, it constitutes so that the letter of sending later mentioned from a printer 14 can be published, and also it has 13d of storage means to memorize main information, and

constitutes.

[0027] Although the local processing station 9 is formed in national every place, corresponding to the central-process stations 7A, 7B, and 7C, the group division of each has been carried out three. Although the every place region processing office 9 equips each with data-processor 9a, it has connected each of the data-processor 9a to the office of either of the central-process offices 7A, 7B, and 7C for every group through the communication line network 8. In this way, the every place region processing station 9 is put under jurisdiction of one of the central-process stations 7, and it constitutes so that information on PD directions information and others may be transmitted and received between each group's jurisdiction central-process stations 7 like the after-mentioned.

[0028] Moreover, the data processor 13 mentioned above has come to have 13d of storage means in distribution processing means 13b for bundling, dividing and carrying out received PD directions information corresponding to the local processing station 9 besides reception means 13a of PD directions information, and reception means 13c of collection-of-money directions information, and the generation processing means 13e pan of the code information mentioned later. In addition, this distribution processing means 13b may be omitted, when the PD directions information and collection-of-money directions information from the enterprise office 3 bundle and divide and have been carried out every area processing office 9 which corresponds beforehand.

[0029] Next, the suitable example of an operation of the physical distribution system 1 by the above configuration is explained concretely. By the following explanation, while taking central-process station 7A for an example out of the central-process station 7, it explains taking the case of the case where set the enterprise station 3 to enterprise station 3A of a home electronics maker, an individual user is further set to use station 5A equipped with the data processor 12 with [of application information] generation processing means 12a, and the physical distribution system 1 is constituted. In addition, about the other examples of an operation, it mentions later.

[0030] First, in a physical distribution system 1, when the enterprise station 3 is set to enterprise station 3A of a home electronics maker, there is PD business (henceforth "the PD business of a repair article") concerning delivery of the home electronics (henceforth a "repair article") as a concrete example which can explain exchange by the system effectively to be fixed, and recovery of the use tariff. Then, it explains taking the case of the processing in the case of carrying out PD business of a repair article on a physical distribution system 1 below.

[0031] In the case of the PD business of a repair article, the processing in a physical distribution system 1 Processing until it begins from a repair application of an individual user, it collects repair articles and it delivers this to enterprise station 3A which performs repair business "recovery processing of a repair article", It can divide roughly into the processing ("recovery processing of a use tariff") which delivers the home electronics (henceforth a "completion article") which repair completed to an individual user, and collects use tariffs (repair tariff).

[0032] If it illustrates to the joint relation and the information flow between each station here paying attention to the general contents of recovery processing of a repair article, it will become like drawing 3 and drawing 4 , but if this is blocked and illustrated for every main batches, it can express like drawing 5 . In recovery processing, repair application 31 is first made as shown in drawing 5 . In use station 5A, an individual user operates a data processor 12, and this repair application 31 starts application information generation processing means 12a, and is performed by generating the application information a on desired. Items, such as the telephone number, a date, an individual user name, the address, a repair name of article, and the contents of failure, are included in the application information a generated at this time. It can come, and is alike, then a user performs transfer processing 32 of the application information a. transfer b Thereby, application information a can be set to enterprise office 3A via public line 4a. In addition, what is necessary is to think, also when carrying out a repair request, after an individual user asks enterprise station 3A in advance to the repair application 31 with the means of a telephone and others before the transfer processing 32, for example, carrying out the consultation (repair consultation) about repair, such as a check of a repair tariff, but just to perform the above-mentioned repair application 31 and the above-mentioned transfer processing 32, after carrying out this repair consultation in that case.

[0033] On the other hand, in enterprise station 3A, reception 33 of application information is performed following this. By this, in data-processor 10of enterprise station 3A A, reception means 10b of application information will be interlocked with the data processor 12 of use station 5A, will receive the application

information a, and will memorize this in the predetermined storage section (for example, order received DB) of 10d of storage means. It can decide to have made a repair application of an individual user, namely, for enterprise office 3A to have received that repair application (request) to enterprise office 3A, by this processing. Then, in enterprise station 3A, generation processing 34 of the recovery directions information c is performed. Generation processing means 10a of PD directions information starts this, it generates the recovery directions information c from the application information a in order received DB, and memorizes it in the predetermined storage section (for example, recovery information storage DB).

[0034] If this recovery directions information c is explained, here this information It is the information for issuing a recovery request of an individual user's repair article to the PD processing station 2 based on the application information a brought together in enterprise station 3A. It is information required to receive each application from each use station 5A, put in block a recovery request of the repair article corresponding to each contents of an application of the, and take out to the PD processing station 2, and computer reading is made possible. As a concrete item, items, such as the telephone number, a date, an individual user name, the address, and a repair name of article, can be considered. Moreover, since an individual user's address is contained in the item, if this is seen from the PD processing station 2, it will be the PD directions information for deciding collect [what] where it should go. Recovery directions information can be called one mode of PD directions information at this point.

[0035] And in enterprise station 3A, that transfer processing 35 is performed after generation of this recovery directions information c. This transmits the recovery directions information c to central-process station 7A collectively with the means 4 of signal transduction. Moreover, although reception of the recovery directions information c is performed to this and coincidence by central-process station 7A, thereby, reception means 13a receives the recovery directions information c collectively, and memorizes this in the predetermined storage section (for example, repair order received DB) of 13d of storage means. In this way, it means acquiring information required deciding collect [what] the recovery directions information c can be received collectively, therefore where central-process station 7A should just go by central-process station 7A, i.e., PD directions information, at once. It means that what is necessary is just to be unable to perform original PD business that enterprise office 3A collects repair articles for this, in view of enterprise office 3A, by enterprise office 3A, but to be able to make information required for the PD business concerned transmit to the PD processing office 2, processing of an intra office is mitigated, and it can concentrate on the part repair business. Moreover, since predetermined information processing is performed automatically and the recovery directions information c can be grasped at a stretch by this as mentioned above when connecting the PD processing station 2 and enterprise station 3A with the means 4 of signal transduction, it is suitable especially when a large number [the number of cases of the application information on enterprise station 3A]. In addition, when not connecting both stations, processing replaced with it must be performed through a help.

[0036] Next, letter issue processing 36 of sending is performed by central-process station 7A. This determines the nearby local processing office 9 as the destination (an individual user's address) for every detail of the recovery directions information c out of the every place region processing office 9 it has jurisdiction [office] by central-process office 7A in distribution processing means 13b. Each detail is divided in every place region processing office 9 unit, and the letter of sending which bundled by this every every place region processing office 9 central-process office 7A has jurisdiction [every place], and was divided is published. Since the areas which there is a charge delivery area, respectively and go to delivery, i.e., recovery of a repair article, every every place region processing office 9 differ even if it is under jurisdiction [which / of the central-process offices 7A, 7B, and 7C], the local processing office 9 is that [***** (it divides)] about the detail record of the recovery directions information c according to the delivery area which this every place region processing office 9 takes charge of. The optimal local processing office 9 can be made to take charge of that recovery by performing this distribution. This point can be called advantage for the PD processing office 2 especially in that save the time amount which recovery takes and efficient recovery can be performed. And if the letter e of sending of a round trip is published based on the recovery directions information c after distribution, the letter e of sending of the round trip bundled and divided every local processing office 9 can be published. Dispatch processing 37 which sending g Makes this letter e of sending and packing material f the local processing station 9 which takes charge of recovery by the central-process station 7 will be performed following this.

[0037] On the other hand, in the local processing station 9, the letter e of sending and packing material f of the round trip are delivered from central-process station 7A to use station 5A according to the destination indicated

in the shape of [e] sending (a part for an outward trip) in response to the letter e of sending of a round trip, and sending of packing material f. In addition, this letter e of sending is the document (cut-form) with which the destination of use station 5A and enterprise station 3A was indicated, respectively by the amount of [a part for an outward trip and] return trip becoming 1 set.

[0038] Moreover, if sending of this letter e of sending and packing material f is received, while an individual user will pack up the repair article h with one side at use office 5A using packing material f, the letter e of sending (a part for a return trip) can be stuck on this. Then, an individual user can carry the repair article [finishing / this packing] h into the predetermined reception place (for example, convenience store) i (refer to drawing 4). Thus, if the individual user of use office 5A transmits application information to enterprise office 3A, since packing material required for packing of the repair article and the letter of sending for a return trip can be received, as for the rest, the individual user can carry the repair article h into the nearby reception place. Therefore, if an individual user performs predetermined information processing, since it becomes unnecessary to carry a repair article into enterprise office 3A specially, the part time and effort can be saved, and also time amount can be saved, and this can be called advantage for an individual user.

[0039] And since a recovery vehicle j turns to recovery periodically from the local processing station 9, recovery processing 38 to which the repair article h is carried into the local processing station 9 by this recovery vehicle j with the letter e of sending and packing material f will be performed in this reception place. Then, in the local processing station 9, it waits for recovery of this repair article h, and while inputting the dispatch data k from data-processor 9a and transmitting to central-process station 7A, processing 39 which ships the repair article h concerned to central-process station 7A will be performed. In addition, although an individual user can carry in the repair article h himself instead, he may be made to collect the cargo of a recovery request (collection of cargo) of the repair article h from the local processing office 9 in response to a direct application and this as mentioned above at use office 5A to the local processing office 9.

[0040] In central-process station 7A, if arrival of goods of this repair article h is received, arrival data will be inputted and the code information which collates this arrival data and the dispatch data k concerned, and corresponds will be generated. This code information concerned is printed by Card 1, and is stuck on the repair article h concerned by processing 40 as a card 1. It gets mixed up with this, and while returning this arrival data to the jurisdiction region processing station 9, it transmits also to enterprise station 3A. If inter exchange of central-process office 7A and enterprise office 3A is made possible as common information which mentioned above the arrival data at this time, the PD situation of the repair article h is manageable among both stations.

[0041] Furthermore, processing 41 which delivers the repair article h with card 1 to enterprise office 3A in central-process office 7A is performed. In this way, the repair article h will be delivered by enterprise station 3A which contracts repair from use station 5A. Thus, it is to hit, by the time it collects repair articles from the application of repair to the order-received pan, not to perform processing concerning the PD business that enterprise station 3A is as keeping it **** [and], but to only perform a series of information processing called reception and generation of predetermined information, and for the PD processing station 2 to execute the PD business concerned by proxy chiefly, and to carry out. [delivering the repair article h] Thus, enterprise office 3A cannot participate in the PD business of storage or delivery of the repair article h only by performing predetermined information processing, can concentrate on the repair business used as the part main occupation, and can raise operating effectiveness now.

[0042] If information processing which generates application information also as use station 5A, and transmits this to enterprise station 3A on the other hand is performed Since it becomes unnecessary to carry the repair article h into enterprise office 3A specially and the rest just makes the repair article h carry into a nearby reception place, like before Repair can be requested simple and freely as time and effort, such as carrying a repair article into enterprise office 3A or its special agent by oneself, is not taken.

[0043] Next, recovery processing of a use tariff is explained. If this processing is illustrated like recovery processing of a repair article and drawing 6 will be blocked and illustrated, it can express like drawing 7. First, recovery processing 42 of the completion article m is performed. This is the processing which can be made by turning a recovery vehicle to enterprise station 3A periodically, and collecting cargo from central-process station 7A. It gets mixed up with this and generation processing 43 of the collection-of-money directions information n is performed in enterprise station 3A. Generation processing means 10c of collection-of-money directions information generates this processing based on the arrival data which mentioned above the collection-of-money directions information n. Transfer processing 44 of the collection-of-money directions information n

is performed following this. By performing processing 45 of this and consecutiveness, the generated collection-of-money directions information n can be transmitted to central-process office 7A, and it can incorporate to data-processor 13A of an office.

[0044] When this collection-of-money directions information n explains here, this collection-of-money directions information n is the information which added the amount of money together to the detail information or the individual user unit which specified the tariff which repair of the repair article h took in every individual user and repair article h, and is the information of which computer reading of the information for deciding "it should go where to collect the amount of money of how much" made possible. Although it may be almost equivalent to what included the item of the amount of collection of money (repair tariff) in the item of the recovery directions information c mentioned above as a concrete item, it is good also as information which includes the telephone number and the amount of collection of money except for the item which is common to the recovery directions information c. In central-process station 7A, it can be grasped by receiving this collection-of-money directions information n collect [the amount of money of how much] where it should go.

[0045] While performing the processing 45 which receives this collection-of-money directions information n in central-process office 7A, it makes the data after collating with this collection-of-money directions information n, or this and arrival data at a basis, distribution processing performs, the letter o of sending bundled and divided every charge area processing office 9 which takes charge of delivery of the completion article m publishes, and a completion article m delivers to a local in its duty processing office 9 (46). Although the letter o of sending other than the card l mentioned above is stuck on the completion article m, since the information on the repair tariff which repair of the completion article m concerned took is included in it in the shape of [this / o] sending at this time, the letter o of sending becomes what displayed the amount of money which should collect money with the address for delivery of the completion article m at the time of that delivery. In this way, in the local in its duty processing station 9 which received the completion article m, according to the publication of this letter o of sending, the completion article m is delivered to corresponding use station 5A, and repair tariffs can be then collected to coincidence (47).

[0046] In the local in its duty processing station 9, if delivery of the completion article m is ended, the completion information p of delivery and the information q on a tariff that it collects will be inputted from data-processor 9a. And the completion information p of delivery and the information q on a tariff that it collects that it was inputted at this time will be brought together in central-process station 7A (48). In central-process office 7A, the delivery situation of the completion article m and the recovery situation of a tariff can be supervised by making the predetermined storage section memorize this completion information p of delivery, and the information q on a tariff that it collects. Furthermore, if these two information, i.e., the completion information p of delivery and the information q on a tariff that it collects, is transmitted to enterprise office 3A from central-process office 7A, unitary management can be carried out among both stations.

[0047] In addition, in recovery processing of the above repair article and recovery processing of a use tariff, when use station 5A is set to use station 5B or use station 5C, each should just also make a case be the same as that of the above of processing of others except the transfer processing 32 of application information, and the reception 33 of application information. That is, if a data processor 12 is operated and application information is generated since it does not have the means of communication 6 of application information when referred to as use station 5B or use station 5C, this application information will be transmitted to enterprise station 3A with the means of facsimile apparatus, or a telephone and others. On the other hand, by enterprise office 3A, if the application information from an individual user is received, the input operating set (for example, keyboard) which is not illustrated can be operated, and it can process like the above after that that what is necessary is just to perform actuation of making data-processor 10A memorizing the information according to the contents. Thus, although a configuration can be simplified so much when it does not have the means of communication 6 of application information, since the complicatedness of processing is unavoidable compared with the case where it has this, when preparing use station 5A, it is good to also install the means of communication 6 of application information.

[0048] Next, in the above configuration, although the case where it is referred to as the case where it is referred to as enterprise station 3B instead of enterprise station 3A, and enterprise station 3C is explained, since it is common in the case of enterprise station 3A, fundamental processing is explained focusing on a different point.

[0049] Enterprise station 3B assumes the communication link education-related business company for the individual user of use station 5A as above-mentioned. This enterprise station 3B ships the teaching materials

(for example, clay and a coloring implement) of its company to use station 5A in response to the application from the individual user of use station 5A. On the other hand, in use station 5A, an original work (for example, teacup) is manufactured itself [individual user] based on the received teaching materials, and it considers as a result article.

[0050] And if the user concerned returns this result article to enterprise office 3B, at enterprise office 3B, the grading article which processes this by the local station (it roasts in a furnace when a result article is a teacup), and serves as that last result object will be returned to use office 5A with a grading result. Hereafter, the case where this kind of business (it is called "correspondence course business") is carried out on a physical distribution system 1 is explained focusing on difference with the PD business of a repair article.

[0051] the case of correspondence course business -- the processing on a physical distribution system 1 -- the PD business of a repair article -- the same -- two, although it can divide roughly In this case, the PD processing which begins from the application from an individual user and starts delivery of the corresponding teaching materials, and recovery of a use tariff as shown in drawing 8 and drawing 9 (henceforth "delivery processing of teaching materials etc."), It can divide roughly into the processing (henceforth "delivery processing of a grading article") concerning delivery of the grading article it is unrefined in the last result object.

[0052] If the processing on the physical distribution systems 1 in delivery processing, such as teaching materials, is blocked and illustrated for every main batches, it will become like drawing 8 . While illustrating the recovery processing 49 of the repair article in use office 5A in left-hand side one half, the delivery processing 50 of teaching materials etc. is illustrated in right-hand side one half, and both are connected with the arrow head to drawing 8 about what is common in the recovery processing 49 and the delivery processing 50.

[0053] First, application 51 of teaching materials is made in the delivery processing 50 of teaching materials etc. This is equivalent to the repair application 31 in the recovery processing 49, and generates application information in use station 5A by performing this. Subsequently, although carried out by the transfer 52 of application information and the reception 53 of application information continuing, since this is common in the application signal transduction processing 32 and the reception 33 of application information, it omits detailed explanation.

[0054] Next, in enterprise station 3B, processing 54 which generates teaching-materials dispatch information is performed. Although this is equivalent to the generation processing 34 of recovery directions information, the teaching-materials dispatch information generated at this time is the information for deciding "You delivering which teaching materials (for example, clay) where at (use station 5A). The amount of money of how much you should collect as a price of teaching materials then", and is the information of which computer reading was made possible. Since this teaching-materials dispatch information has the element of the both sides of above-mentioned PD directions information and collection-of-money directions information, it will receive PD directions information and collection-of-money directions information from enterprise station 3B to coincidence in central-process station 7B. Moreover, it can come, and is alike, then transfer processing 55 of teaching-materials dispatch information is performed, and dispatch processing of teaching materials is performed to central-process station 7B from enterprise station 3B further almost simultaneously.

[0055] On the other hand, in central-process station 7B, while performing issue processing 56 (as common as the letter issue processing 36 of sending) of the letter of both-way sending in response to transfer of teaching-materials dispatch information, this letter of sending is stuck on the received teaching materials, these teaching materials are delivered to each addressing to use station 5A via the local processing station 9, and the price of those teaching materials also collects money at this time (57). In this way, by having made the PD processing station 2 execute PD business by proxy, teaching materials are sent to the individual user of use station 5A, and it becomes ***** to which recovery of the price is performed.

[0056] And in use office 5A, although a desired work can be itself manufactured based on the received teaching materials, it waits for completion of a work and the following processings are performed. First, an individual user packs up the completed work (result article), sticks the letter of sending of a return trip, and carries out drag-in or a collection-of-cargo request for this to a predetermined reception place. Then, recovery 58 of the teaching materials with which a recovery vehicle collects these with other result articles is performed, and the result article at this time is carried into the local processing station 9. Moreover, in the local processing station 9, dispatch processing 59 which ships a result article to central-process station 7B is performed with a dispatch entry of data like the above-mentioned dispatch processing 39. By central-process station 7B, processing 60

which both carries out card printing of this to if dispatch data and arrival data are collated and code information is generated is performed, and processing 61 which sticks the card concerned on the received result article, and is delivered to enterprise station 3B is performed further again. In this way, a result article will be delivered by enterprise station 3B. As mentioned above, in the case of correspondence course business, enterprise station 3B will not perform PD business of delivery and others of teaching materials, but predetermined information processing will only be performed, and delivery of teaching materials and price recovery of that will be carried out to it.

[0057] Next, although it is recovery processing of a grading article, if this is blocked to main batches, it will become like drawing 9. Here, like drawing 8, while illustrating the recovery processing [in / for left-hand side one half / use office 5A] 62, the delivery processing 63 of the teaching materials in use office 5B is illustrated in right-hand side one half, and both are tied up with the arrow head about what is common in the recovery processing 62 and the delivery processing 63.

[0058] First, recovery processing 64 of a grading article is performed. This is equivalent to the recovery processing 42 of a completion article, from central-process office 7B, can turn a recovery vehicle to enterprise office 3B periodically, and can perform it. Subsequently, in enterprise station 3B, each processing of the generation 65 of PD directions information and the transfer 66 of PD directions information is performed. It will get mixed up with these processings, dispatch processing 68 of a grading article will be performed to central-process station 7B, and a grading article will be delivered by use station 5B via the local processing station 9 from central-process station 7B with this. Then, the predetermined information input 69 is performed.

[0059] As mentioned above, the PD processing station 2 will execute by proxy PD business which enterprise station 3B only performs predetermined information processing, and enterprise station 3B originally performs about delivery of the grading article it is unrefined in the last result object in enterprise station 3B, and the collection practices of the use tariff of teaching materials, and it will be performed. Therefore, enterprise station 3B is [that it can concentrate on original business, and operating effectiveness improves, and the use station 5 should just also carry a result object into a nearby reception place on the other hand] very simple.

[0060] Next, in the case of enterprise office 3C, the external storage which was the quality inspection contractor of goods in this case, collected the samples (sample) which use office 5A presents in response to the application from use office 5A, conducted quality inspection predetermined in an intra office, and recorded the report of a sample and an inspection result or the result after inspection is returned to use office 5A from enterprise office 3C. Although business in this case (nature inspection business of goods on consignment-in) can also be carried out with the PD support system 1, since an operation of the system 1 in that case is the same as that of the PD business of a repair article, detailed explanation is omitted. Of course, it cannot be overemphasized that it is useful for the both sides of the enterprise station 3 and the use station 5 like the PD business of a repair article in this case.

[0061] Furthermore, there is PD business of an article of consumption like a supplement and restoration of the toner of the PD business, printer, and copying machine concerning the so-called version up (amendment of a program) of computer apparatus, such as a personal computer and a Personal Digital Assistant, as what exchange by the PD support system 1 can assume also about enterprise office 3A in addition to the PD business of a repair article. Although all are the same as that of the PD business of a repair article, while receiving the application (request) from an individual user by enterprise office 3A, used article-of-consumption recovery directions information which recorded the program before amendment corresponding to the application concerned, such as a storage and a toner, can be generated, and it can transmit to central-process office 7A, and can carry out like the case of a repair article, and the following.

[0062] Although explanation of the above example explained taking the case of the case where it delivers to use station 5A in enterprise station 3A via the local processing station 9 central-process station 7A has jurisdiction [station] focusing on the relation between enterprise station 3A and central-process station 7A This invention is included also when receiving the information which central-process station 7A should deliver via the jurisdiction region processing station 9 of enterprise station 3A to central-process station 7B or central-process station 7C. That is, this invention is included also when receiving ***** which the central-process offices 7B or 7C besides the information which central-process office 7A should process itself [from enterprise office 3A / central-process office 7A] should process, as shown in drawing 10. Moreover, in addition to this, as shown in this drawing (B), also when three enterprise station 3A is being installed corresponding to the central-process stations 7A, 7B, or 7C, this invention is included.

[0063] In addition, the procedure shown by explanation of the above example is an example, and can change the sequence suitably in the range which does not change the purpose of this invention. Moreover, the contents of an enterprise of the enterprise station 3 can also be applied also to the business like the so-called elegance lowering exchange (business which performs a substitute in advance and performs recovery and collection of money of an exchange article to dispatch and coincidence). furthermore -- the above-mentioned example -- the PD directions office 2 -- the information of the both sides of PD directions information and collection-of-money directions information -- order -- or by this invention, although the case where it received to coincidence was explained, also when not receiving collection-of-money directions information, it contains. For example, it is the case where the price which the PD took is not transmitted to the PD directions station 2, without [which are collected with another means] making it like (for example, it collecting by the automatic change of an account and cash not being delivered), and generating collection-of-money directions information by the enterprise station 3.

[Translation done.]

****NOTICES ***

**JPO and NCIPI are not responsible for any
damages caused by the use of this translation.**

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the system configuration Fig. showing the whole PD support system concerning this invention.

[Drawing 2] It is the important section block diagram of the PD support system illustrated focusing on the central-process station.

[Drawing 3] It is an explanatory view illustrating the example of employment of a PD support system.

[Drawing 4] It is an explanatory view illustrating the example of employment of consecutiveness of drawing 3.

[Drawing 5] It is the explanatory view which blocked and illustrated the example of employment of drawing 3 to the batch.

[Drawing 6] It is an explanatory view illustrating the example of employment of consecutiveness of drawing 4.

[Drawing 7] It is the explanatory view which blocked and illustrated the example of employment of drawing 6 to the batch.

[Drawing 8] It is the explanatory view which blocked and illustrated another example of employment of a PD support system.

[Drawing 9] It is an explanatory view illustrating the example of employment of consecutiveness of drawing 8.

[Drawing 10] It is an explanatory view illustrating the other examples of the relation between a central-process station and an enterprise station.

[Description of Notations]

1 PD Support System

2 PD Processing Station

3 Enterprise Station

3A, 3B, 3C Enterprise station

4 Means of Signal Transduction

5 Use Station

5A, 5B, 5C Use station

6 Means of Application Signal Transduction

7 Central-Process Station

7A, 7B, 7C Central-process station

9 Local Processing Station

10A, 10B Data processor

10C, 12, and 13 Data processor

[Translation done.]

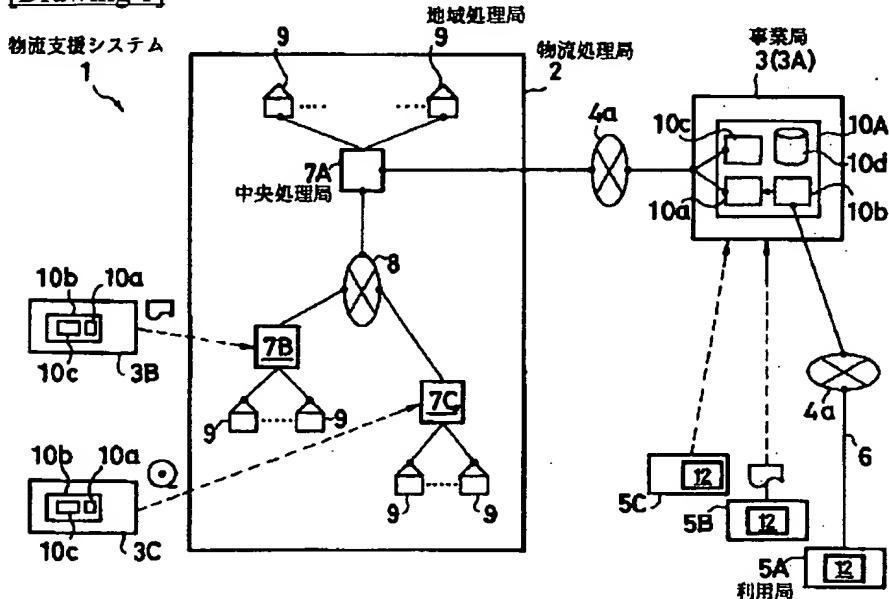
**NOTICES *

JPO and NCIPI are not responsible for any damages caused by the use of this translation.

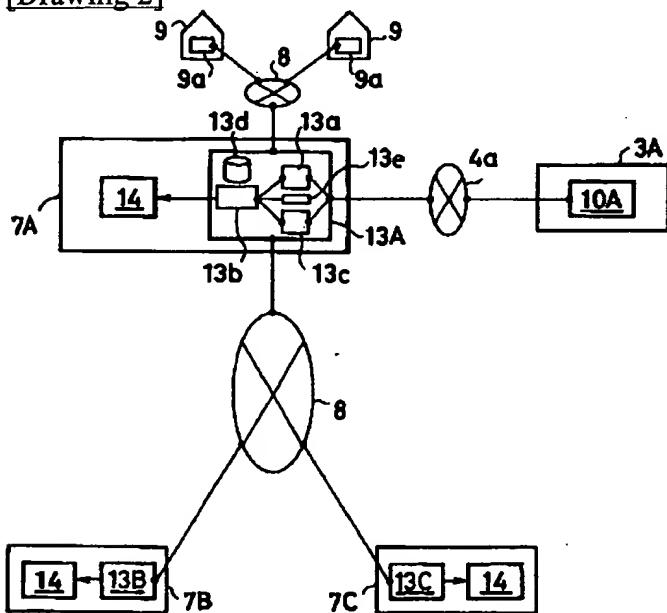
1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DRAWINGS

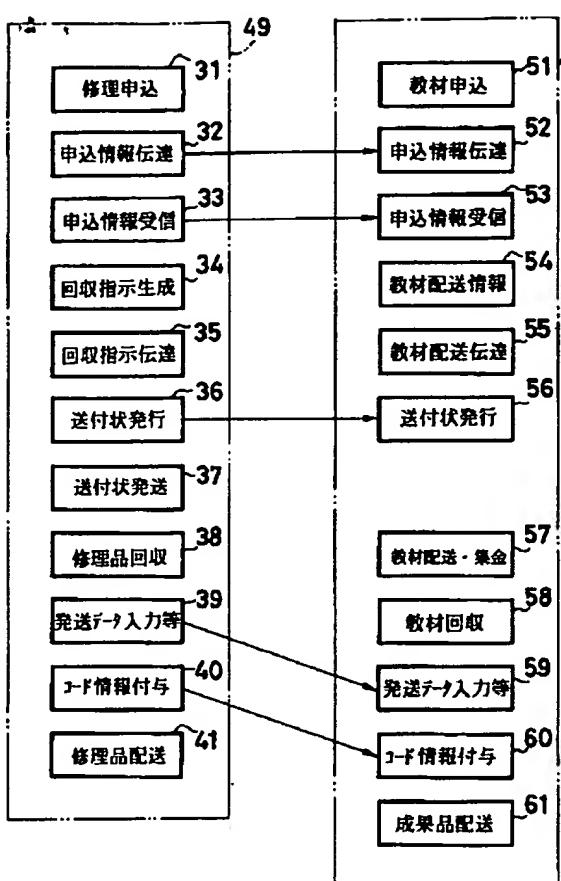
[Drawing 1]



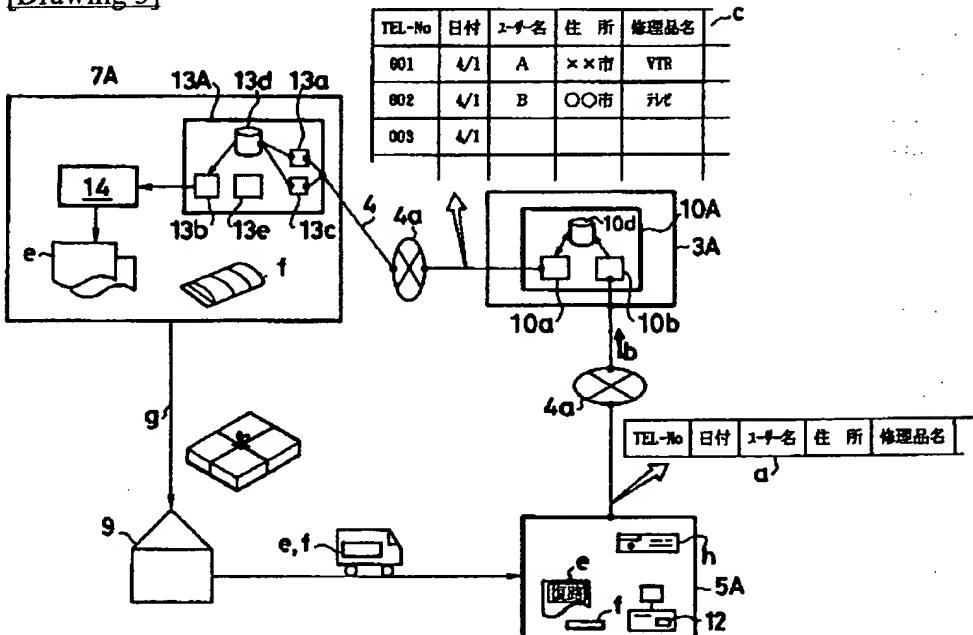
[Drawing 2]



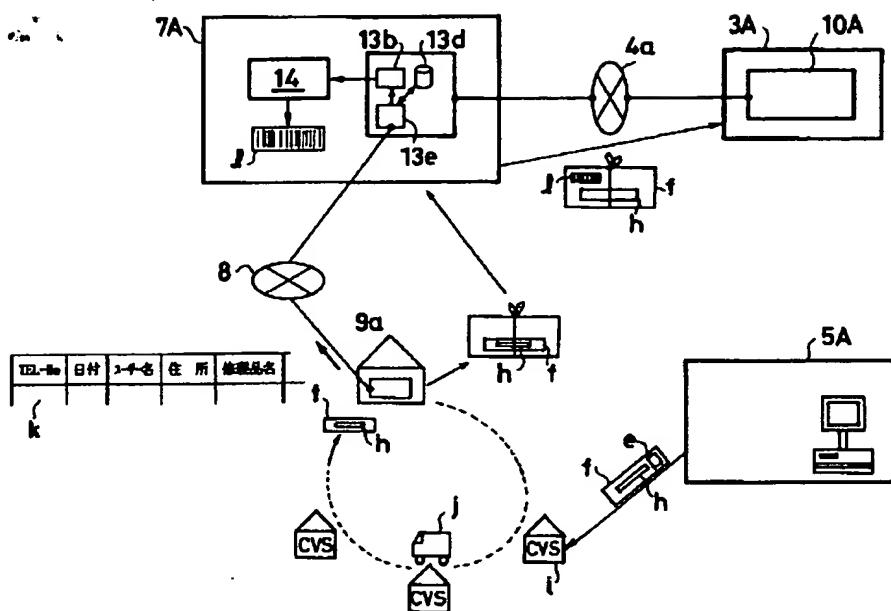
[Drawing 8]



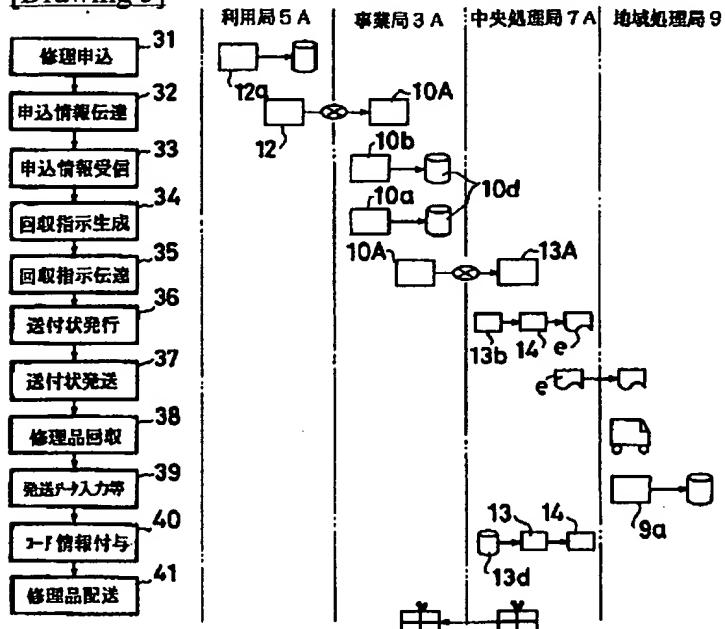
[Drawing 3]



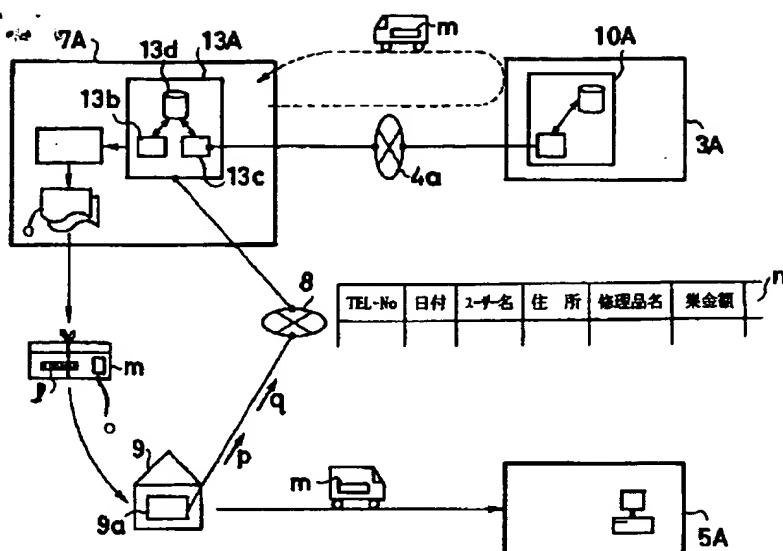
[Drawing 4]



[Drawing 5]



[Drawing 6]



[Drawing 9]



[Drawing 7]

